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Surgical Treatment of Massive Hemorrhage from Duodenal Ulcer*

By

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INTRODUCTION

THERE is unanimity of opinion that massive duodenal hemorrhage is an emergency but by no means is there agreement as to whether this dramatic complication of duodenal ulcer is medical or surgical. Peptic ulcer itself is a very common condition, it being estimated that well over half a million people in the United States have a duodenal or gastric ulcer. This involves one in ten of the male population by the age of 45 to 54, and of the major complications, perforation, obstruction and hemorrhage, the latter is the most frequent, occurring in 25 per cent of ulcer patients at some time during the course of the disease.[4] Controversy in management is engendered by the fact that 80 to 90 per cent of these hemorrhages will stop spontaneously or at least with conservative regimen.[5] The real problem is to sort out the 10 to 20 per cent of bleeding patients who will exsanguinate, who bleed again while under treatment or who continue to bleed in spite of massive blood replacement therapy.[2] Urgency is stimulated by the surgeon's knowledge that if he must operate, the decision must be made and acted upon before the patient has been allowed to bleed for 48 hours, else he must accept a threefold increase in case fatality rate. In the poorer-risk patients there is a tendency to withhold surgery either from reluctance to advise operation or from more extensive workup and preparation so that these most serious cases tend to pass the 48-hour optimal period. Actually, in poor-risk patients it is especially advisable to decide on surgical intervention as early as feasible.[8]

Medical men tend to remember the days when the case fatality rate for elective gastric resection greatly exceeded the conservative regimen of morphine, rest and starvation.[1] Indeed, this period was within the memory of many of us and the medical man had every justification for retaining these patients. On the other hand, the surgeon suffered the unfairness of having to accept moribund patients for operation, thus placing himself at poor advantage. With increase in surgical excellence, medical men now may expect a case fatality rate of less than 1 per cent[10] for elective gastric resections and of no more than 10 to 20 per cent for emergency gastric resections for massive hemorrhage. Thus, in good hands, there need be no apology for surgical results.

DIAGNOSIS

Hemorrhage may be minimal or massive, in single or repeated episodes, may occur at any age and is most common in the male.

A definition of what constitutes a massive hemorrhage is necessary and dogmatic acceptance of criteria such as Stewart's hemo-

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globin of less than 7.5 grams or a red blood count of 2,500,000 or less seems too rigid.[14] To await the clinical signs of shock is unreliable as some patients tolerate severe blood loss without symptoms or signs of shock. We consider a patient has had massive hemorrhage if the hematocrit is 30 or below, hemoglobin below 8 grams, clinical signs of shock or if adequate blood replacement does not materially improve hemoglobin and hematocrit, indicating continued bleeding.

Massive hemorrhage from a peptic ulcer manifests itself by hematemesis or melena or both. Either is diagnostic of bleeding into the upper alimentary tract, but source may not be a peptic ulcer. Melena alone occurs more commonly than hematemesis alone. The rapid loss of large amounts of blood causes pallor and an increased pulse rate, which are the earliest signs of shock. If there is further loss, there may be a fall in blood pressure, dyspnea, fainting and other manifestations of advanced shock.

Most hemorrhages due to peptic ulcer are from congested vessels surrounding the ulcerated area. Massive hemorrhage is frequently due to the ulcer having penetrated an artery or vein. In the duodenum this would be into the superior pancreaticoduodenal, gastroduodenal, hepatic, right gastroepiploic, pyloric artery or a branch of one of these. Spontaneous closing of the vessel is frequently prevented by being held open by the scar tissue or by the rigidity of the walls from arteriosclerotic or inflammatory changes.

Ordinarily, the surgeon finds one bleeding area but he must remember that diffuse multiple shallow ulcers of the stomach and/or duodenum may cause fatal bleeding. Therefore, the finding of one bleeding point does not obviate the necessity for a careful further search.

Once a tentative diagnosis of bleeding duodenal ulcer has been made, intensive conservative treatment should be initiated immediately. This should consist of rapid replacement of the blood loss, bed rest, nasogastric suction, 5 per cent glucose in water if needed to overcome dehydration, oxygen if required and mild sedation. There should be frequent determinations of hematocrit, at least every four hours. There should be a record of pulse, respiration, blood pressure and all laboratory reports kept and readily available for review, as this will give an indication of the status of the patient. Frequently, the course of the vital signs will be as valuable as laboratory tests. The most important single part of treatment is the rapid replacement of blood.[7] It should be treated as vigorously as with an external wound bleeding a comparable amount. There seems to be a reluctance on the part of many physicians to transfuse rapidly and sufficiently.

The chain of events following admission of a patient with gastrointestinal bleeding should progress smoothly and the management should be the joint responsibility of the internist and the surgeon.[2] Adequate replacement of the blood and a careful record of clinical signs with frequent determinations of hematocrit levels are imperative in order to evaluate the status of bleeding. If there has been no definitive diagnosis established, vigorous efforts should be made in this direction because subsequent events and procedures will differ considerably depending upon whether the bleeding is from esophageal varices, from peptic ulcer or from both, as well it may be. Fluoroscopic roentgen studies with barium are not contraindicated as was formerly thought but, indeed, such studies are diagnostic in a high proportion of cases. The danger is not from the examination itself but from the fact that the patient may be left for relatively long periods on a litter awaiting examination or transportation back to the ward. This is the danger period when untoward results occur. Esophagoscopy is very valuable in determinations regarding esophageal varices but gastroscopy is not very helpful. If esophagoscopy and roentgen studies rule out esophageal varices, peptic ulceration will be the source of bleeding in well over 95 per cent of cases and the surgeon can determine whether it is gastric or duodenal at operation. In some cases, splenic pulp pressure measurements by percutaneous splenic puncture may be helpful.[15]

Team Management

Patients with gastrointestinal hemorrhage constitute a medical problem primarily because some 80 to 90 per cent will respond to conservative means. The surgeon sees each patient soon after admission, as a consultant, because 10 to 20 per cent of patients will come to operation and he is concerned to see that blood replacement is sufficient in amount, is given rapidly enough and to see that operation is accomplished within 48 hours if it is going to be necessary.[9]

The decision for surgery should be made in those cases that do not respond adequately to blood replacement, indicating that bleeding is continuing or in those patients who initially respond but then show evidence of re-bleeding. This makes it necessary that the patient have constant supervision with frequent clinical re-evaluation if a logical early decision is to be made. Using this plan of treatment, Glenn and Harrison[6] at Cornell Medical Center operated upon 22.4 per cent of their patients in order to control bleeding with an 8 per cent mortality.

Chinn and associates[3] have stated that patients who survive the initial hemorrhage and are continued under medical management have a 31 per cent chance of having a second hemorrhage within five years, while those who survive a second hemorrhage and are continued under medical management have a 64 percent chance of having a third hemorrhage within five years of the second. They also concluded from their study that a patient over 50 years of age with a history of multiple hemorrhages was very unfavorable for continued medical treatment.

Stewart and his group[13] tried to solve the problem by treating all acutely bleeding peptic ulcers by immediate blood replacement and early gastric resection. He reported mortality rates of 3 per cent under 50 years of age and 18 per cent over 50 years of age with an overall average of 8 per cent.

Tanner operated upon 60 per cent of cases with an overall mortality of 7.5 per cent. He performed a partial gastrectomy at once on all patients with massive hemorrhage who had a history of severe chronic peptic ulceration. With no such history a conservative regimen was followed but if severe bleeding was repeated in the hospital, operation was carried out.[16]

Some of the factors which should be taken into consideration in addition to the hemorrhage in the potential candidate for surgery are: (1) The age of the patient. This is borne out by the reported mortality figures in patients over 50 years of age. This is due to many factors such as the changes in the walls of the blood vessels preventing spontaneous cessation of bleeding, the secondary changes in the distant organs from anoxia with sclerotic vessels and lessened blood supply. (2) The history of longstanding ulcer disease, and/or (3) repeated hemorrhages. This is indirectly related to the age of the patient and scarring which occurs with chronic disease. It has been pointed out that the history of fainting prior to admission is a bad prognostic sign (2).

Operative Procedure

Immediately upon exposure of the stomach and duodenum by means of a bilateral subcostal incision, the surgeon may recognize the inflammatory area by vision and palpation as being gastric or duodenal. If gastric, the ulcer usually is on the lesser curvature and immediate ligation of the left gastric artery often stops bleeding. The surgeon then can make a more leisurely search for additional bleeding areas through a gastric incision. If duodenal, the vessel often can be identified as it enters the duodenal wall and immediate ligation stops bleeding. Then the surgeon divides the duodenum just distal to the pylorus to verify control of hemorrhage and to look for additional areas of bleeding. Obviously, the first procedure is to find the bleeding area and secure hemostasis. This necessitates an open procedure with considerably more contamination than is desirable but a closed procedure may allow one to overlook a bleeding area or to fail to control the primary bleeding point. While removal of the gastric ulcer is essential because of the possibility of cancer, no such fear accompan es operation for duodenal ulcer and even in hemorrhage cases,

the ulcer bed itself need not be resected provided that hemostasis is secured by oversewing or preferably by definitive ligation of the vessel to the ulcer bed. Ill-advised persistent attempts to remove the ulcer bed may lead to pancreatic fistula, acute pancreatitis or breakdown of the duodenal stump. While in very rare instances the patient may bleed again postoperatively, no case has been seen where the retained ulcer re-bled. Recurrent bleeding has been from missed ulcers and if late, from other disease. Having controlled the site of hemorrhage, the standard operative procedure is carried out without compromise because of the patient's condition. As has been emphasized elsewhere[11] this is believed to be a no loop, small stoma, posterior gastrojejunostomy following a two-third to three-fourth gastric resection.

Complications

Patients undergoing emergency gastric resection for hemorrhage develop a much higher incidence of postoperative complications than patients in the elective resection category. Whether this is because of greater contamination from open operation and wide exploration or from the lowering of tissue resistance due to blood loss and shock is not known but the former seems logical. In addition to the high rate of wound infection, these patients are subject to the usual complications incident to any major operation. The complication of re-bleeding has been mentioned and if the bleeding ulcer has been controlled adequately, re-bleeding means missed ulcers, insecure anastomotic line, chronic gastritis, associated esophageal varices or some other cause. Alimentary azotemia from absorption of blood from the bowel lumen can be serious and is best obviated by aspirating as much blood as possible from the bowel at time of operation.

Results

In three years covered by this study (1956 to 1959), there have been 22 patients who required emergency gastric resection for massive hemorrhage from duodenal ulcer. There were no deaths for the first 34 months of this period and then two patients died, giving a case fatality rate of 9.1 per cent. In this same period there were ten emergency gastric resections for gastric hemorrhage with no deaths. Thus, for all emergency gastric resections in the three-year period, our case fatality rate was 6.2 per cent. During this same time there were 78 elective gastric resections with a 0.0 per cent case fatality, giving an overall death rate for all gastric resections of 1.8 per cent.

From this point on, we refer only to the 22 emergency resections for duodenal hemorrhage, 19 of which were in males and of these five were in Orientals. The oldest patient was 72, the youngest 25 and the average age was 43 years. All of these patients had a two-third to three-fourth resection with no loop, small stoma, antiperistaltic, retrocolic gastrojejunostomy.

There was a history of previous bleeding in five cases, with three of these having had multiple episodes of upper gastrointestinal hemorrhage. A previous ulcer history was obtained in 13 cases, or 59.1 per cent.

No true seasonal incidence could be noted in our series; however, there were more admissions in April and May than in any other two-month interval.

The average amount of blood received by each patient prior to surgery was 7,112 cc. which exemplifies the liberal replacement used at this hospital in treatment of massive hemorrhage. The largest amount received by one patient preoperatively was 14,000 cc. These amounts of blood seem inordinately large and seem to indicate a dilatory policy in getting the patient to the operating room. However, there were extenuating circumstances which seemed cogent at the time and our case fatality rate, medical and surgical proves the value of adequate replacement.

In our series of 22 cases, 16 had surgery performed under 48 hours with a percentage of 72.7 per cent. The six cases which were followed over 48 hours included four who had initially responded then began to bleed again, necessitating operation after the optimal period.

Complications occur so frequently in emergency surgery for bleeding duodenal ulcer

that it tends to be expected. The reason for this is not completely understood; however, it was noted in our series that those patients admitted with a hematocrit of 27 per cent or less showed a complication rate of 69.2 per cent. In those patients with a hematocrit of 28 or more on admission, only 25 per cent developed a complication. In our series of 22 patients the overall complication rate was 41 per cent. These were: Dehiscence 3; pneumonia, lobar, 2; wound infection 3; postoperative bleeding 1.

During the period under consideration there were 260 admissions for duodenal ulcer with hemorrhage. Emergency surgical treatment was required in 8.5 per cent which compares favorably with figures given by Smith, Boles and Jordan.[12]

Our Case Fatalities

Our two patients who expired are sufficiently interesting and unusual to require a brief report with comments.

Case 1: A 250-pound, 53-year-old Caucasion male was admitted on 26 May 1959 with tarry stools, weakness and dizziness of two days' duration. In March 1959, there was onset of recurrent epigastric pain. Hypertension had been present for seven years. Pulse rate was 134, blood pressure 130/70 (shock level for him) and he was pale, cold and sweaty. Admission hemoglobin level was 5.5 grams and hematocrit was 23. He received 6,500 cc. of blood by early 27 May, and operative incision was made as the thirteenth bottle of blood was being given. At that time hemoglobin level was 7 grams and hematocrit 28. On 28 May, the temperature was 104 degrees and the following day it rose to 105.2 degrees, apparently from transfusion reaction. Active bleeding was noted again on 29 May, and after administration of 15 bottles of blood without improvement, the duodenal stump, anastomotic line and gastric pouch were explored without a bleeding point being identified. Hemoglobin and hematocrit remained stable at satisfactory levels following this. On 1 June, the patient had an episode of cardiac arrhythmia and suddenly expired, probably due to a myocardial infarction. He had received a total of 16,000 cc. of whole blood during his hospitalization. Autopsy revealed extensive multiple ulcerations of the entire duodenum to the level of the ligament of Treitz. How to handle this type of hemorrhage is not apparent to us.

Case 2: A 54-year-old Malayan male was admitted to the hospital on 2 June 1959, with the history of tarry stools, weakness and dizziness for seven days prior to admission. He had previously been admitted in February 1959 for similar complaints. Past history revealed hypertension of long duration with a Smithwick sympathectomy bilaterally. Medication consisted of serpasil, apresoline and diuril. Examination revealed a blood pressure of 150/90, pulse rate 80, hemoglobin 6.8 grams and hematocrit 26. Within 24 hours he had received 2,000 cc. of blood with elevation of the hematocrit to 40. On 4 June, esophagoscopy and gastroscopy revealed superficial ulcerations of the esophagus and lesser curvature of the stomach. This examination was repeated on 15 June, but the procedure was discontinued because of lack of cooperation from the patient. On 16 June, there was pain in the neck and anterior chest with dysphagia and fever. Antibiotics were started. On 18 June, incision and drainage of a retropharyngeal abscess and tracheostomy were performed. Late on 24 June, melena occurred with a drop in hematocrit to 32. He responded to one unit of blood. Approximately 24 hours later there was the onset of hematemesis and melena with rapid appearance of clinical shock. A subtotal gastrectomy was performed with the findings of multiple ulcerations. He continued to bleed postoperatively and expired on 29 June 1959. He had received a total of 13,000 cc. of blood during his hospitalization. Autopsy again revealed multiple ulcerations of the entire duodenum to the level of the ligament of Treitz. Anything short of duodenectomy would have been insufficient.

Summary and Conclusions

1. Our criteria for massive hemorrhage consist of a hematocrit of 30 or below, hemoglobin level below 8 grams, clinical signs of

shock or failure to respond to adequate blood replacement. Treatment is the responsibility of the gastroenterologist with surgical consultation and consists of adequate rapid blood replacement of blood volume, use of nasogastric suction, intravenous fluids and other supportive measures as needed. Frequent clinical evaluation of the patient's status is imperative.

2. If conservative regimen is to be abandoned in favor of gastric resection, this must be done as early as indications are clear and certainly before 48 hours except in very unusual cases. In 72.7 per cent of our series, resection was done before the 48-hour deadline.

3. In a three-year period (1956 to 1959) we did 22 emergency gastric resections for massive duodenal hemorrhage with two fatalities (9.1 per cent). During this same period there were ten emergency resections for gastric hemorrhage with 0.0 per cent fatality. There were 78 elective gastric resections during this same period with 0.0 per cent fatality, giving an overall case fatality rate for all gastric resections (110) of 1.8 per cent.

4. Fifty-nine per cent of our duodenal hemorrhage cases had a history of previous ulcer disease, 23 per cent had bled previously and 14 per cent had bled on multiple occasions.

5. The average amount of blood received by each patient preoperatively was 7,112 cc. and the largest preoperative amount received by any one patient was 14,000 cc.

6. Postoperative complications of minor degree occurred in 41 per cent of the emergency resections for duodenal hemorrhage.

7. During the period of this report, 260 patients were admitted for duodenal ulcer with hemorrhage, giving an incidence of emergency resections of 8.5 per cent.

8. Our two fatal cases received 16,000 and 13,000 cc. of blood respectively and in each case autopsy showed multiple ulcerations of the entire duodenum to the level of the ligament of Treitz.

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Schistosomiasis: Further Studies on the Development of a Prophylactic Drug—In Vivo Tests with a Promising Fraction of an Extract of *Yucca Pallida* Leaves

By

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IN 1957 the author,[1] working with the cercariae of *S. mansoni* in *invitro* tests found that a 22-day-old infusion of *Yucca pallida* leaves inhibited the activity of cercariae in a dilution of 1:20,000,000 after five minutes exposure.

Subsequent *invivo* tests, using cercariae freshly emerged from infected *Australorbis glabratus* snails, indicated that a fraction of an extract, the method of preparation of which is to be described later, also inhibited the motility of cercariae in relatively high dilutions.

MATERIALS AND METHODS

Cercariae. The cercariae of *S. mansoni* used in the tests were allowed to emerge naturally from infected snails placed in small beakers containing 10-20 milliliters of chlorine-free water; one ml. of this water containing 12-25 cercariae was then transferred to each of a number of Syracuse watch glasses; to each watch glass was added one ml. of a solution of the extract fraction, one ml. of which had been diluted with distilled water 10^{-1}-10^{-7}. The 10^{-3} dilution of the extract solution effected a cessation of the motility of the cercariae in 5 minutes.

Plant Material. Yucca pallida (McKelv.) is a wild, indigenous specie of the *Liliaceae* widely distributed in the semiarid, limestone, hilly region of western Texas. Willaman[2] states that the leaves of the *Yucca pallida* may contain minute amounts of saponins but do not contain fat, flavonoids, protein, alkaloids, tannins or sterols; a small amount of free amino acids and sugars may be present also. Kemp,[3] working with various chemicals and other substances, incorporated in an ointment base, found that 10 percent by weight of Yucca leaf powder in petrolatum and olive oil, applied to the skin of mice exposed to infection of *S. mansoni* cercariae for 30 minutes, gave 100 percent relative protection against infection. In those experiments, it is the author's opinion that, either the petrolatum or olive oil extracted a cercaricidal substance from the Yucca leaf powder, which diffused into the water in a sufficient amount either to kill or so weaken the cercariae that they could not penetrate the skin.

PREPARATION OF THE ANTICERCARIAL FRACTION FROM AN EXTRACT OF THE LEAVES OF YUCCA PALLIDA

The leaves are removed from the central stem of the plant and cut into short pieces, 3-4 inches long. These pieces are spread thinly over the surface of an aerated tray and allowed to dry for six weeks or two months at Texas' summertime, room temperature in the shade. The leaves may be collected at any time during the period from April to October, and appear to retain the potency of the anticercarial constituents for two or more years after collection, drying and storage. When the small, cut pieces of leaves are sufficiently dry to be powdered, they are passed through any appropriate grinding mill and ground to a 40-mesh fineness. Any given quantity of this powdered material is macerated 24 hours in solvent consisting of equal parts of acetone and 90% ethyl alcohol, using 10 mls. of solvent for each gram of the powdered plant material.

The experiments reported in this paper were undertaken on the initiative and at the personal expense of the author; statements and conclusions are his own and are not to be interpreted as reflecting the views of the Army Medical Service.

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After macerating the powdered leaves for 24 hours, the mixture is filtered through filter paper and the filtrate measured and concentrated by boiling to one-thirtieth of its original volume, or until it has the consistency of thin syrup. The concentrated filtrate is measured and all its constituents are precipitated by adding 24 times its volume of cold, distilled water acidified with one-eighth the volume of the water of 1 N. hydrochloric acid. Precipitation is allowed to proceed for three or four hours, after which the mixture is filtered through filter paper and the filtrate is centrifuged at 3,000 rpm. for five minutes. The supernatant of the centrifuged filtrate is aspirated off and small lots of it, usually from 10-20 mls., are placed in watch glasses or petri dishes for drying at 50 degrees F. Each ml. of the supernatant usually yields from 8-12 mgs. of dried residue, which represents the substance or group of substances present in *Yucca pallida* leaves that exhibits an anticercarial activity. Other species of Yucca closely related to *Y. pallida,* e.g., *Y. rupicola* and *Y. baccata,* also probably contain the anticercarial substance or group of substances, but none of these species has been investigated for its potency.

The dried supernatant liquid exhibits its anticercarial activity only in an alkaline solution having a pH of between 7 and 8. This solution may be prepared by dissolving the pulverized, dried material for 12 hours in 1 N. sodium hydroxide and adjusting this alkaline solution to the desired pH with 1 N. HCl.

When the anticercarial activity of the dried material was first discovered, the substance was given the designation, "Precipitate No. 43c" (ppt. #43c), and will, hereafter, be indicated by that designation as referring to the active ingredient of the extract of the *Yucca pallida* plant.

Preliminary Invivo Tests with ppt. #43c

On the basis of the demonstrated activity of ppt. #43c invitro, five mice averaging 25 grams weight were each given orally .025 ml. of an alkaline solution of ppt. #43c containing 0.1 mg./ml. of ppt. #43c two days before being exposed to infection by cercariae of *S. mansoni,* and on each of seven days after exposure. All of the mice were exposed to infection by immersing their tails in water containing several hundred freshly-emerged cercariae per milliliter for 45 minutes.

Seven weeks after exposure to infection and after each animal had received nine oral doses of 0.1 mg./kg. of ppt. #43c, the mice were autopsied and their portal and mesenteric veins and livers were examined for the presence of adult schistosomes. Prior to autopsy the stools of both the infected, treated and untreated control groups, were examined periodically for the presence of schistosome ova. Animals of both groups were positive for the presence of ova, but at the autopsy examination, the treated animals which had received 0.1 mg./kg. showed the presence of an average of 33 adult schistosomes per animal, while the animals of the untreated control group averaged 50.3 adult worms each.

Summary

A fraction of an ethyl alcohol-acetone extract of the leaves of the plant *Yucca pallida* and its method of preparation is described. An alkaline solution of the dried fraction, called "ppt. #43c" exhibited an inhibitive activity to the motility of *Schistosoma mansoni* cercariae in invitro tests at a dilution of 10^{-3} in five minutes. *Invivo* tests in which 0.1 mg./kg. of an alkaline solution of ppt. #43c was administered orally on nine successive days to each of 5 mice infected with the cercariae of *S. mansoni* showed, upon autopsy, that the animals averaged 33 adult worms per mouse, as compared to an average of 50.3 adult schistosomes per each of 10 mice in an untreated control group that had been infected with cercariae at the same time and in the same manner as the mice in the treated group.

Discussion and Conclusions

The author recognizes the very limited and inconclusive magnitude of the results of the invivo tests reported herein for the determining of the activity of a fraction of an extract

of the leaves of *Yucca pallida* for preventing the development of schistosome cercariae to the adult stage in animals susceptible to infection by the parasite. Nevertheless, it is his opinion the results demonstrate quite definitely that the plant *Yucca pallida* contains a substance or group of substances which have an inimical effect on the development of schistosome cercariae, and that they point the way toward an ultimately successful development of a prophylactic or suppressive drug which can be administered orally for the prevention of schistosomiasis.

Although only three of the five treated mice survived to be autopsied, as against 10 out of 10 mice of the infected, untreated control group that survived to be autopsied, this indication of a slight degree of toxicity of the Yucca extract is not of sufficient significance to obviate its possible usefulness as a prophylactic in the prevention of schistosomiasis.

It is evident that much more experimental work needs to be done to obtain adequate data to determine significantly a safe, non-toxic dosage level of the Yucca extract, and to determine its absolute efficacy in preventing the development of cercariae *invivo*. Additional experiments of this nature are under way.

In further reference to the possible toxicity of ppt. #43c, it does not seem likely that the method of its preparation would extract any harmful substance from the plant, since the known chemical constituents of Yucca, with the exception of the saponins, have not been demonstrated, to the author's knowledge, to possess a specific toxicity for higher animals. The saponins appear to be toxic only when introduced directly into the bloodstream; in the alimentary tract they are hydrolyzed rapidly to harmless sapogenins. On the ranges of western Texas it has been observed that range animals (sheep and goats) feed quite extensively in the spring on the fresh, young leaves of *Yucca pallida* without manifesting acute or chronic symptoms of harmful effects.

Mode of Anticercarial Action of ppt. #43c

Although this has not been investigated specifically, some evidence permits of the following conjectures: (1) In common with many plants growing in a semiarid region, *Y. pallida* appears to be resistant to any form of parasitic disease or the attack of insect parasites. This resistance may be due to the presence of an antiparasitic substance similar to one called "Tomatin," the varying amount of which in various varieties of tomatoes, determines the degree of resistance of a particular variety to a parasitic fungus. (2) Ppt. #43c exerts a direct, toxic effect on the cercariae as indicated by the author's[1] earlier invitro tests with an infusion of *Y. pallida* leaves. In those experiments it was demonstrated that the two hormones of the posterior lobe of the hypophysis oxytocin (pitocin) and vasopressin (pitressin) affected the motility of *S. mansoni* cercariae in high dilution. In view of the inhibitive action of the secretions of the hypophysis to cercariae, it seems possible that the anticercarial activity of ppt. #43c may be due to stimulating a hypersecretion of hypophyseal hormones causing an overabundance of those substances in the bloodstream. (3) If cercariae are dependent upon any fraction of the growth hormone to complete their developmen to the adult stage, it may be that ppt. #43c is antagonistic to those fractions.

Since neither chemically pure plant saponins nor plant sapogenins exhibited anticercarial activity in invitro tests, it does not seem likely that either of these constituents of the plant's leaves contribute to the anticercarial activity of ppt. #43c, unless they have combined with other elements to form a different compound.

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Invitation

The author invites correspondence with any individual or Research Organization in the U.S. OR FOREIGN country that is interested in receiving, without cost, a supply of "ppt.43c" for the purpose of conducting invivo experiments to determine the anticercarial activity of the compound when administered orally to infested animals.

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TIPS TO SMALL CAR DRIVERS

1. Handle your small car with extra care until you are used to it.
2. Don't take advantage of its easy maneuverability by cutting in and out of traffic.
3. Be especially alert when driving on two-lane roads. Many drivers judge the distance of oncoming cars by their size.
4. Be cautious when driving in strong winds, particularly on open stretches of road and on high exposed bridges.
5. Keep a safe distance behind trucks. In case of sudden stops, your car may end up under the truck's tail gate—sans top and driver.
6. Pamper the big car driver's nerves by maintaining an even speed. It unnerves him completely when your little car zips past on the level and then slows down on the next upgrade.

The Fund Insurance Company of San Francisco

A tip to the big car owner: Watch for the little car!

Medical Service Corps Career Planning

By

LT. COLONEL WILLIAM J. CLEGG, JR., MSC, *U. S. Army**

THE measure of success achieved by any organization, corporate, religious, or military, is directly related to the training of the personnel within such an entity. The complexities of modern society require that maximum utilization be made of individual ability and aptitude. In the competitive struggle for attracting and holding people with desirable qualifications, proven and latent, any organization must consider an elementary motivational factor—the self interest of the individual. The Department of the Army has recognized this and The Army Medical Service is especially cognizant of this fact. Therefore, the Army has outlined, in detail, a program by which it hopes to achieve maximum benefits from its Officer Corps.

DEPARTMENT OF THE ARMY CAREER PLANNING PROGRAM

The purpose of The Army Career Planning Program as outlined in DA Pamphlet No. 600-3 is "To assure the maximum development of the Army Officers' interests, inherent abilities and aptitudes, as well as the best utilization of their acquired skills and accumulated knowledge." The Army strives to maintain a highly competent Officer Corps qualified to serve the nation with maximum efficiency in the event of a national emergency. Further and more practical, it seeks to develop assignment patterns that will integrate the desires and the qualifications of the individual officers with the needs of the Army and the nation.

The career planning program consists of "on-the-job" practical training, supplemented by formal school training and is designed to take advantage of available and appropriate duty positions for training the maximum number of officers in command and staff functions.

Successful administration of this program is dependent upon the energetic co-operation of all officers in carrying out the planned rotation designed to produce well rounded, practically experienced, and versatile officers, capable of filling responsible positions in time of emergency. The program, if properly administered on all levels, will eliminate repeated assignments to the same type and level of duties, unless specialization is indicated, and will substitute therefor greater opportunity for deserving officers to gain experience in broad practical command and staff duties. In short, this program will give permanence to assignment patterns that have long been acknowledged as right and proper. This is the key to the success of the entire program.

The basic elements of the Career Planning Program are:

1. The development of an officer's capacity for responsibility in high command or staff positions. This is dependent to a large degree on the aptitude, ability and the duty assignments he receives during the development stage of his career.

Duty assignments are dependent on:

a. Availability of position vacancies as dictated by current needs of the service.

b. Availability of officers in need of the particular "on-the-job" training offered by currently existing position vacancies.

2. Effective career planning, which assures that available positions and available officers are correlated to the maximum to provide for:

a. Formal training in schools.

b. Rotation of assignment in varied types of duties.

c. Development of capacity by performance of duty in progressively higher echelons of responsibility.

The difference in mission and organization of each branch, makes it impractical to designate a single career pattern which applies

* Office of the Surgeon General, Department of the Army, Washington 25, D.C.

TABLE 1

MEDICAL SERVICE CORPS OFFICER CAREER PROGRESSION FIELDS

1. *Pharmacy, Supply & Administration Section*
   a. *Pharmacy Subsection and Career Field, MOS 3318, Pharmacy Officer*
   b. *Supply Subsection, Supply Career Field*
      (1) MOS 4000, Supply Officer, General
      (2) MOS 4010, Supply Staff Officer (G4, S4)
      (3) MOS 4310, Purchasing & Contracting Officer
      (4) MOS 4490, Medical Supply Officer
      (5) MOS 4890, Medical Equipment Maintenance Technician (Warrant Officers)
   c. *Administration Subsection*
      (1) *Comptrollership Career Field*
         (a) MOS 2401, Machine Records Officer
         (b) MOS 2610, Management Analyst
         (c) MOS 6000, Comptroller
         (d) MOS 6302, Budget and Fiscal Officer
      (c) *Personnel Career Field*
         (a) MOS 2200, Personnel Officer
         (b) MOS 2210, Personnel Management Officer
         (c) MOS 2260, Personnel Staff Officer (G1, S1)
         (d) MOS 2265, Manpower Control Officer
         (e) MOS 2900, Hq Unit Commander
         (f) MOS 5505, Information Officer
      (3) *Registrar Career Field, MOS 2431, Registrar*
      (4) *Hospital Administrators Career Field, MOS 3012, Hosp. Administrator*
      (5) *Operations & Training Career Field*
         (a) MOS 2162, Operations & Training Staff Officer (G3, S3)
         (b) MOS 2520, Training Officer
         (c) MOS 2622, Training Center Unit Officer
         (d) MOS 3506, Field Medical Assistant
      (6) *Medical Aviation Career Field (Sub Field of Operations & Training)*
         (a) MOS 1981, Rotary Wing Aviator
         (b) MOS 1983, Aviation Unit Commander
         (c) MOS 2518, Aviation Staff Officer
      (7) *Medical Technical Intelligence Career Field*
         (a) MOS 9300, Military Intelligence Officer
         (b) MOS 9301, Combat Intelligence Staff Officer (G2, S2)
         (c) MOS 9340, Technical Intelligence Coordination Officer
2. *Allied Sciences Section*
   a. *Psychologist Career Field*
      (1) MOS 2230, Psychologist
      (2) MOS 2232, Clinical Psychologist
      (3) MOS 2239, Psychological Assistant
   b. *Social Work Career Field, MOS 3606, Social Worker*
   c. *Podiatry Career Field, MOS 3350, Podiatrist*
   d. *Nuclear Science Career Field, MOS 3308, Nuclear Medical Science Officer*
   e. *Laboratory Sciences Career Field*
      (1) MOS 3307, Bacteriologist
      (2) MOS 3309, Biochemist
      (3) MOS 3310, Parasitologist
      (4) MOS 3311, Immunologist
      (5) MOS 3314, Clinical Laboratory Officer
      (6) MOS 3327, Physiologist
   f. *Entomology Career Field, MOS 3315, Entomologist*
3. *Sanitary Engineering Section & Career Field, MOS 7960, Sanitary Engineer*
4. *Optometry Section*
   a. *Optometry Career Field*
      (1) MOS 3340, Optometrist
      (2) MOS 4891, Optical Shop Officer

to all branches and to all officers. Recognizing this difference and the fact that the degree of various types of specialization required in certain fields is greater than in others, the Department of the Army has developed a general plan to be used as a guide by each branch in drawing its own detailed plan. Though the various detailed plans may differ slightly from each other, the policies which control assignments to schools, foreign service and other duties are uniform in their affect.

This general plan divides the career of an officer into 4 phases:

Junior Officer Period (0-7 years)
Command and Staff Period (8-14 years)
Field Grade Period (15-21 years)
War Leaders (over 21 years)

Junior Officer Period (1st Phase, 0-7, Years)

In this period an officer will receive his basic military foundation. Experience in the direct leadership of men and broad experience in his branch must be afforded an officer in this period. This is the period for the young officer to serve his practical internship and establish a foundation on which his future will be built. During this period, all officers should have finished the basic course and the advanced course of their respective branch.

In the Medical Service Corps, it is the current and future policy that attendance at the Medical Service Corps Officer Basic Course and the AMEDS Officers' Advanced Branch Course will be mandatory. Each officer will attend the Basic Course immediately upon entry on active duty. He will attend the Advanced Course between 5 and 12 years of service, and normally during his sixth or seventh year. This policy applies to officers in each of the 4 sections of the Corps.

Command and Staff Period (2nd Phase, 8-14 Years)

Normally, an officer will have attained the grade of captain in this period and some will have attained the grade of major. In the overall Department of the Army Plan, when an officer enters this phase or period, he will be given assignments to broaden his development, such as civilian component duty, staff training, instructor duty, additional troop command and further schooling. By this time the records should clearly indicate an officer's ability and special qualifications. Specialization will normally begin during this period. Officers will indicate their desires for specialization along certain lines such as radiological safety, electronics, public relations, comptrollership, budget and fiscal, business administration and personnel administration. Further, they will establish their qualifications for certain specialized assignments by actual performance of duty. Officers will be selected to attend the Command and General Staff College. A small percentage will attend the Armed Forces Staff College and all will have the opportunity to establish their qualifications for school, troop and staff assignments.

In the Medical Service Corps this is the phase when the officer in the Supply and Administration Sub-Sections of the PS&A Section is given his definite career field. Those officers who are commissioned in the Pharmacy Subsection of the PS&A Section, Allied Sciences Section, Sanitary Engineering Section and Optometry Section are automatically picked up in the appropriate career field upon entry on active duty. Normally the officer in the Supply and Administration Subsections of the PS&A Section is given assignments in the Strategic Reserve Units in the ZI and the Divisional Medical Service Units overseas during the first 3 years of his junior officer period. During the third or fourth week of the Medical Service Corps Officer Basic Course (Junior Officer Period) each student is interviewed by a representative from the Career Planning Section, MSC and WO Branch, Personnel and Training Division, OTSG for the purpose of developing his career planning file and ascertaining his interests, desires and aptitudes. This initial interview, along

with a desk audit is the basis for the selection of a tentative career field for the officer. Usually definite identification of the tentative career field is made sometime during the third year of the officer's first or troop duty assignment. Upon completion of the basic course the officer should and will have a troop duty assignment if he is identified in the Supply and Administration Subsections of the Pharmacy, Supply and Administration Section, Medical Service Corps. If he is in the Pharmacy Subsection of the Pharmacy, Supply and Administration Section or one of the three other sections, he will be assigned to his permanent, primary career field and professional specialty (clinical or experimental psychology, social work, bacteriology, optometry, sanitary engineering, etc.), immediately upon entry on active duty. Upon completion of a normal three-year tour those officers in the Supply and Administration Subsections will be identified in a tentative career field and the next assignment will be within the structure of this career field. Usually, upon completion of this second three year tour the officer will attend the AMEDS Officer Advanced Course (8-A-C4). When he attends the Advanced Branch Course, preferably in the sixth year, he is again interviewed by a MSC representative from the Career Planning Section, usually during the first or second month of the course.

As described for the Basic Course, a desk audit or study is conducted in the Career Planning Section on each officer attending the course. A brief on each officer is prepared for use during the interview. During the interview the officer again has the opportunity to express his interests and desires. Based on the interview and the information and data that have been compiled and recorded in his career planning file as a result of the information gained in his initial interview and gathered from sources such as the efficiency reports, letters received from the officer, letters received from his superiors and other personal interviews, his definite career field or area of specialization is determined. Upon successful completion of the Advanced Branch Course, the officer moves into the Command and Staff period and is given a utilization assignment in his career field. From then on he will receive repeat progressive assignments in his career field and in addition directed, time-spaced, broadening and diversified assignments outside his career field. Also during this phase or period of time, an officer will attend C&GSC or a civilian institution for attainment of a Master's Degree, dependent upon the career field he is in. Usually, those officers in the Operations and Training career field attended C&GSC and those in such fields as Comptrollership, Supply, Personnel, Registrar and Hospital Administrator, attend civilian institutions, for higher level schooling in their field. In the case of those attending the school for Hospital Administration, the majority will go to the School of Hospital Administration, Army Medical Service School. Also specially selected officers who are earmarked, because of their already proven potential, for high level assignments, are sent to C&GSC, and a civilian institution. These are officers who will be assigned to the Medical Plans and Operations Division, Supply Division, the Personnel and Training Division, OTSG, and General Staff duty, Departments of the Army and Defense where a requirement for both high level military schools and civilian institutions are essential.

Field Grade Period (3rd Phase, 15-21 Years)

Usually an officer in this period has attained the grade of major and many have attained the grade of Lt. Col. Assignments to troop command will be less frequent while assignments to staff duty, instructor duty and similar assignments will be more frequent. Return assignments to responsible positions in the field of specialization will be made. Most important will be the indexing of these field grade officers for emergency or mobilization assignments. In the MSC a mobilization designation or emergency assignment is

established immediately upon the officer's entry on active duty. This file consists of a 4" × 6" card on each officer, Regular and Reserve, showing full name, grade, service number, current primary and secondary MOS and mobilization assignment. These cards are reviewed and brought up-to-date annually and each time an officer successfully completes a course or school, which would qualify him for a higher or different skill level. During this period, with the officer advancing to the field grade, his career is determined by his interest and his background, but subject to the limitation of position vacancies. Through planned consecutive assignments, "on-the-job" training, special school courses, and tours of temporary duty with allied industries, he will receive specialized training in certain fields. Concurrently, during this phase of the officer's career with assignments to more responsible positions his military knowledge will continue to expand with his higher level experience, broadened contacts and with duty assignments common to all arms and services (branch—immaterial assignments). Some officers will complete the top level military schools. A small number of highly selected individuals will attend one of the War Colleges. Career Monitoring of assignments will cease for most officers on completion of 21 years of service. The majority of officers will have established themselves in the Army and their capabilities will be recognized and made a matter of record. These officers will be utilized for the many assignments in which their maturity and experience will be invaluable and which lends prestige in keeping with their grades.

In this phase, the MSC officer will have continued progressive assignments in his career field with some diversification by a broadening assignment outside of his career field. Also during this period, some will attend one of the Senior Services Colleges (National War College, Army War College, Navy War College, Industrial College of the Armed Forces, Air War College, British Imperial Defense College and Canadian National Defense College) or a civilian institution for the purpose of attaining the Ph.D. degree in his field of specialization (Comptrollership, Business Administration, Industrial Management, Personnel Management, Medical Statistics, etc.).

War Leaders (Over 21 Years of Service)

Beyond the career monitoring period (21 years) selected officers will be assigned to important positions of primary responsibility. Examples in this area would be DA Staff positions, "logistician" in the new Logistics Officer Program, Research and Development Specialists and certain top level positions identified in the branch immaterial category (General Staff) in functional areas such as Personnel, Intelligence, Comptrollership, Information, Legislative, Liaison, etc. These will be officers who are considered potential leaders in any immediate emergency. This is a final screening and testing period for potential high commanders and key staff and scientific personnel.

The AMEDS Officers' Career Planning Program fits generally within the structure of the Department of the Army Program. The one most important area of possible difference or deviation is in the degree of specialization. Because of the very nature and complexity of our mission we must provide for a far greater degree of specialization in almost every field of endeavor within the AMEDS area of responsibility. The objective of the AMEDS Career Planning Program is the same as that of the Department of the Army Program—"to develop a highly competent Army Medical Service Officer and Warrant Officer Corps qualified to serve the nation most effectively in time of war and peace." In order to accomplish the successful attainment of this objective in the MSC and for the AMEDS Warrant Officer Group an MSC and WO Branch has been established within the Personnel and Training Division, OTSG.

This branch as currently organized is composed of a Career Planning Section and an

Assignment Section. This organizational structure, which is similar in the other five Corps of the Army Medical Service (Medical Corps, Dental Corps, Veterinary Corps, Army Nurse Corps and the Army Medical Specialist Corps), provides the mechanism or means by which The Surgeon General is able to accomplish his career planning mission. The specific tools used within this branch to achieve effective and efficient career planning are:

1. MOS Classification—Initial and Continuous.
2. Establishment of career progression patterns and identifying officers and Warrant officers with the appropriate career pattern.
3. Monitoring and controlling school selections (military and civilian).
4. Determining type assignments and assuring that these assignments are correlated with attendance at appropriate schools.

Within the Career Planning Section of the MSC & WO Branch, the specific functions and responsibilities are:

1. Preparation and maintenance of accurate and up-to-date career planning records on all members of the MSC and AMEDS warrant Officer Group (Regular and Career Reservist). Career planning is being carried on for the reservist the same as for the regular, the only difference being the total career progression pattern for regulars is 21 years with 9 more years for full utilization time and 15 years for the career reservist, with a remaining 5 years to complete a total of 20, which is the normal career for the reserve officer.

2. Determines type of duty assignment for all MSC officers and AMEDS Warrant Officers, including initial assignment, ZI reassignments, assignments to and from overseas and assignments to and from schools. Exception to this is the two year obligated officer. Career planning in its full scope is not conducted for this group. A modified program is carried out for these officers, primarily to select those who show a potential for the Regular Army or for extended active duty as a career reservist and to interest those selected in a career in the MSC.

3. Determines qualifications of each of the members of the MSC and AMEDS Warrant Officers; ascertains in what career field are his or her interests and greatest potentialities to the Army Medical Service and then develops and monitors the career of each officer and warrant officer in his or her specialty by means of school and correlated assignments.

4. Co-ordinates with the Chief, Medical Service Corps and other divisions of the Office of The Surgeon General concerned on assignments and school selections (military and civilian schools) of senior Medical Service Corps officers and on policies and procedures relative to long range career planning for the Corps. Co-ordinates with the Chiefs of the four sections of the Corps on assignments, school selections and other career planning activities as they pertain to their respective section of the Corps (Pharmacy, Supply and Administration; Medical Allied Sciences; Sanitary Engineering and Optometry). In actuality, each of the 17 career fields within the Medical Service Corps (Table No. 1) has a consultant or monitor who is particularly qualified in the area of specialization. These consultants, or monitors, spend at least 50% of their work day on career planning or allied activities concerning their particular group.

5. Co-ordinates with the Service Schools Branch, Personnel and Training Division, OTSG, on all Medical Service Corps Officers and AMEDS Warrant Officers' applications received for military and civilian courses and schools. Recommends, nominates and selects Medical Service Corps Officers and AMEDS Warrant Officers to attend basic and advanced branch material and branch immaterial schools, Senior Service Colleges and civilian institutions, makes appropriate recommendations for military schools, through the Branch chief, to the Chief, Personnel and Training Division. Prepares applications for civilian schools, in

conjunction with the Service Schools Branch, to present to the Professional Education and Training Committee (PETC), OTSG. The PETC is composed normally of three (3) voting members, the Chief, Professional Division, Chief, Preventive Medicine Division and the Chief, Personnel and Training Division.

6. Develops, establishes and maintains career progression patterns for the various sections and areas of specialty of the MSC and AMEDS Warrant Officers; prepares graphic representation of these patterns and staffs through DCSLOG and TAGO for Department of the Army publication. Like the career planning file the career progression pattern is one of the fundamental tools of career planning. Without a career pattern, it is impossible to determine what career field an officer is in and what level he has attained in his career progression or growth. Each officer is notified by letter as to what career field he is in and where he stands in the applicable career progression pattern. This letter will notify the officer of his career field and invite his attention to area marked by red arrows on the enclosed career progression pattern which will indicate the level he has progressed to on the ladder.

7. Determines best potential mobilization assignment for officers of the Medical Service Corps and AMEDS Warrant Officers, Regular and Career Reservists, and maintains such records current.

8. Makes staff and liaison visits to major commands and Class II medical installations, CONUS and overseas, for the purpose of orientating all Medical Service Corps officers and AMEDS Warrant Officers on the career planning and guidance program, discussing individual career problems and compiling data and information for further development of Medical Service Corps' and Warrant Officers' career patterns; participates in interviewing members of the MSC and AMEDS Warrant Officers attending courses at the Army Medical Service School, Brooke Army Medical Center, Fort Sam Houston, Texas, for the purpose of determining appropriate type assignments upon completion of school and procuring information and data to further build the officer's career planning record. This function was established in 1957 on a programmed or scheduled basis. It is planned to visit each medical installation, CONUS and overseas, once in a three year period and all the classes at the Army Medical Service School.

9. Establishes and maintains the Military Occupational Specialty Program which includes the conduct of a continuous programmed review of all Medical Service Corps and AMEDS Warrant Officers records to assure current MOS are accurate.

The carrying out of each of these functions and responsibilities, which are similar in the other Corps sections of the Personnel and Training Division, as one entity, results in the successful accomplishment of the AMEDS career planning program and in turn the overall Department of the Army program. More important, it will achieve probably the most vital objective and responsibility of the AMEDS, next to conserving the fighting strength and the care of the patient, that of developing a highly competent Army Medical Service Officer and Warrant Officer Corps fully qualified to serve the nation with maximum effectiveness and efficiency in time of war and peace.

To paraphrase Brigadier General Reuben H. Tucker, III, Chief, Infantry Branch, Officers Assignment Division, TAGO, "Our aim is to further personalize officer assignments. In these days of increased specialization it becomes more and more necessary to fit round pegs into the round holes. We cannot do this without increasing our knowledge of the man and the job opportunities available. We want to know the jobs we're sending our officers to, and the best way we can do that is to go where they are."

A Pot of Gold at the End of a Rainbow

By
M. Marian Wood, R.N.*

ON JUNE 26, 1956, the hammers and the stone chisels became silent at Deschappelles in the Artibonite Valley, Haiti. This was the birthday of Dr. Larimer Mellon and there could be no finer gift for him that day than the completed Hospital Albert Schweitzer. A few days later on July 5, 1956 the first patients were admitted for treatment. The opening of this hospital brought to reality a goal which Dr. Mellon had set for himself some eight years before. It stood as a monument to his late mother who upon questioning her as a child, she had told him that the finest thing in all the world was to be a medical missionary.

Dr. Larimer Mellon, a nephew of Andrew Mellon, was born in Pittsburgh. His boyhood afforded him the usual advantages of a well to do family. He attended Princeton University leaving during his third year. He then worked for the Mellon Bank and for the Gulf Oil Company. Rather unexpectedly at the age of 25 he went to Arizona where he lived for a number of years as a successful rancher. After reading a story about Albert Schweitzer, "The Greatest Man in the World" he announced to his wife that he would like to go to medical school with a long range goal of becoming a medical missionary. He received her blessing for the endeavor. At the age of 41 he entered Tulane University as a premedical student.

He wrote Dr. Schweitzer of his plan and received a nine page letter in reply. "May God help and bless you in the path you have chosen" wrote Dr. Schweitzer. He cautioned Dr. Mellon that the path would be difficult since the assimilation of knowledge is difficult when one is older. This letter must have served as an inspiration and an encouragement to Dr. Mellon on many occasions during the next few years.

Larimer Mellon applied for admission to Tulane University and was accepted. Mr. and Mrs. Mellon and their four children moved from Arizona to New Orleans, Louisiana. Seven years after entering Tulane University Dr. Mellon had received his doctor's degree and had served his interneship. While he was in medical school Mrs. Mellon prepared herself as a laboratory technician. The year 1955 must have had special meaning for the Mellons. The first big step in the realization of this self sacrificing goal had been taken. Later that year they spent six months with Dr. Schweitzer at his hospital in Lambarene, Africa. In my personal contact with the Mellons they have often spoken of this experience as a significant one in preparing them for the founding of their hospital.

Prior to entering Tulane University and during vacation periods Larry and Gwen Mellon traveled to other countries to find a suitable location for their medical missionary work. They were guided by the thought, "If you want to be of the greatest service, you must find the place where there are the fewest hands for the greatest need." They found just such a location as they traveled in the Caribbean collecting material for a thesis on tropical ulcers. It was the Artibonite Valley in Haiti.

The plan was advanced to the president of Haiti. Later an agreement was worked out by the Haitian Government and the Grant Foundation, a foundation established to finance the hospital, and named after Mrs. Mellon. The agreement was approved by the Haitian Congress. This made the project another step closer to realization.

Haiti resembles darkest Africa a generation ago. Today there are very few countries as impoverished, undeveloped and wretched as this Negro Republic of the Western Hemisphere. The per capita income is sixty five dollars a year. A native proverb, "The sun sets, but misfortune never sets," seems to

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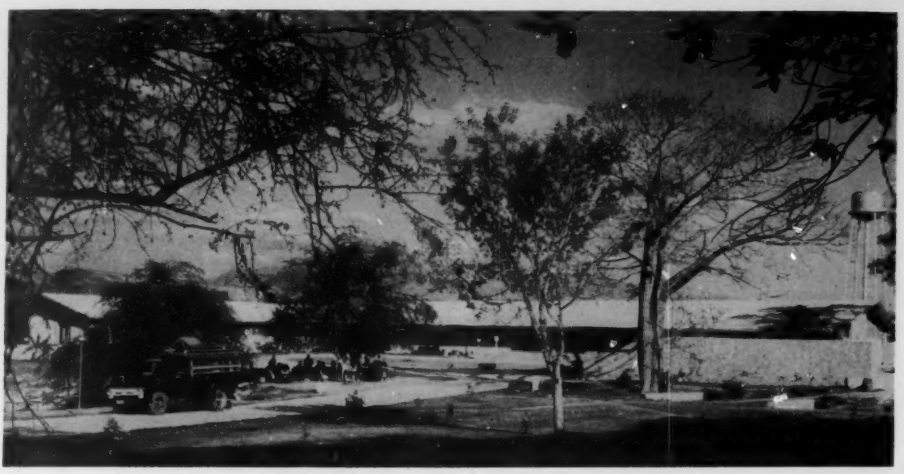

FIG. 1. The Albert Schweitzer Hospital, Deschapelles, Haiti.

fit this stricken land. It is difficult to comprehend that Haiti was once France's richest colonial possession. The roads are few and are pitted, narrow and twisted. The communication system is extremely limited. Hospital Albert Schweitzer has no telephone connection with Port au Prince.

The Artibonite Valley, the site selected for the hospital, is approximately 90 miles from Port au Prince. It is about 30 miles inland from Saint Marc, a coastal port. The area is overpopulated. There is a 99.9% illiteracy rate. Voodoo has a stronghold among the people of the valley. Irrigation in recent years has made it a flourishing agricultural section. Physically, it is a beautiful valley. Magnificent rainbows have prompted many to call it "Rainbow Valley." But everywhere there are sordid reminders that it is a land of poverty, disease, malnutrition and illiteracy.

Creole is the language of the Artibonite Valley. Although French is the official language of Haiti, every Haitian is at home in Creole. Various explanations have been made as to the origin and composition of Creole. It has a relationship to old French, especially the dialects of Normandy and Picardy. The syntax and grammar resemble certain African languages. Creole developed simultaneously in such places as Louisiana, Martinique and St. Lucia, and there is a language likeness in all of these areas. Creole is a simple language and can be learned with minimal effort. Most of the foreign staff are able to converse in broken Creole after two months of patient contact. The hospital sponsors Creole instruction. This language barrier brings a need for increased acuity in the observation of patients.

Hospital Albert Schweitzer is a one story building of poured concrete and native stone built at a cost of $1,750,000. It has its own electrical power plant and its own water purification plant. A hundred acre farm, a gift of the Haitian government, provides the hospital with vegetables, corn, rice, citrus fruits and bananas, and produces beef cattle, sheep, goats, and poultry. The hospital maintains trucks, buses, station wagons and other vehicles. Equipment at the hospital is comparable to that found in state side hospitals. The architecture of the building, the well kept grounds, the rising water tower, and the radiance of light at night are in sharp contrast to the unkept terrain and the primitive houses of the Artibonite Valley and the total darkness which comes with the setting of the sun.

The hospital services a population of approximately 250,000, a population relative to the size of Providence, Rhode Island. Eight

FIG. 2. Dr. Mellon and Miss Petersen, R.N.

physicians, one dentist and twenty professional nurses provide a medical care program for an average of 250 clinical patients and 100 hospital patients daily. As many as 400 patients have been seen on a single day in the out-patient clinic. Surgical operations average 75-80 per month. In the first three years of operation the hospital admitted 4,000 patients and the out-patient clinic treated 100,000 patients.

Tuberculosis is an overwhelming medical condition in Haiti and in the Artibonite Valley. The hospital maintains a 14 bed hospital ward for children with tuberculosis. Three hundred adults and one hundred sixty children are treated on an out-patient basis. Approximately fifteen thousand dollars of drugs are prescribed for tuberculosis patients without charge annually. INH and PAS are the drugs most frequently prescribed. The diligence with which the patients take their medicine is substantiated by consistent improvement determined by chest x-rays taken each three months. Dr. Mellon sees some decrease in the tuberculosis rate for the area within a few years. The economics and the mode of living in the valley are in line with those factors which favor a high incidence of tuberculosis. One of the most contributing factors is the family arrangements for sleeping. The primitive houses are small, often measuring eight by twelve feet and the family which is often many in number sleeps on floor mats within this small area. Superstition dictates that all doors and windows must be tightly closed at night to prevent the "evil spirits" from entering.

Malnutrition in the form of protein anemia is the most prevalent pediatric condition. One pediatrician estimated that 75-80% of the pediatric beds were occupied by children with preventable diseases. This high rate of malnutrition is due to poverty, ignorance and lack of suitable food. Rice and cornmeal are prominent in the diet and in many instances are the only elements of the diet. Superstition resulting from religious and magical beliefs also plays a role in malnutrition. The natives believe that cow's milk is too strong for babies who have just been weaned. Goat's milk is considered improper food for children of any age. Bananas and oranges are readily available but are classified as "cold foods" and as such are harmful to small children. No one at the hospital has been able to determine the true meaning of "cold food" or the harmful element. Children learn to respect these foods at an early age. Bananas diced in minute pieces served with rice in the hospital will be meticulously picked out and neatly piled on the side of a child's plate.

The most prevalent reason for the admission of infants to the hospital is tetanus of the newborn. Tetanus organisms are universally abundant in the Artibonite Valley. Many babies are born out of doors and a stone from the ground is frequently used to cut the cord. A mixture of ashes from a ground fire and oil is often applied to the umbilicus of the newborn. Severe tetanus infections are frequent. Many infants are in spasm with opisthotonus when they reach the hospital. During the past three years different methods of treatment have been tried and under the current treatment the survival rate has reached sixty six per cent. The number of infants brought to the hospital for tetanus treatment has steadily increased. This would indicate that "the magic" of the American doctor is making gains over the Hougan, the native practitioner of magic medicine.

The hospital has trained forty midwives

in the hope of reducing the incidence of tetanus in the newborn. They are supplied with simple delivery kits containing cord ties, a sterile razor blade, a bandage for the cord, and a belly band, all of which are wrapped in a big sheet of heavy brown paper. The paper may be the most significant item of the kit. In instructing the midwives a point of emphasis is that they must lay the newborn on the brown paper and not on the ground. Of course, they are cautioned against the use of ground ashes and oil. The newborn's grandmother is pictured as a "charcoal villainess" and the midwives are told to keep her away from the baby.

Nearly all of the people living in the Artibonite Valley are suffering from chronic and recurrent malaria. The falciparium (malignant) variety takes a heavy toll of lives each year. Frequently a patient acutely ill with malaria reaches the hospital in the late afternoon having started the trip by donkey at sun up that morning. In view of this rigorous mode of travel and the debilitating midday temperature it is amazing that these patients survive and reach the hospital. Many times these patients are so ill that certain activities must be suspended to give emergency treatment.

Venereal diseases are common throughout the Artibonite Valley. Many patients with intestinal parasites report to the hospital for treatment. Pertussis is very prevalent among the children. There are many forms of anemia. Cases of polomyelitis come to the hospital from the villages along the coast. The degenerative diseases come early to the people of this area and are widespread. Congenital conditions rarely seen in this country often come to the hospital for treatment. These exist mainly because of the previous lack of medical facilities and the absence of a health care program for infants and children. Open fires, and perhaps magic rituals, bring many burned cases to the hospital. Uterine fibroids and herniae are prevalent conditions requiring surgery.

A number of physicians from the United States and other neighboring countries make periodic visits to the hospital on a voluntary basis to supplement the work of the regular staff. The hospital makes every possible effort to fully utilize the services of these visiting physicians. A plastic surgeon comes at intervals and the week is set aside for the specialty as "Plastic Week." Patients needing the services of the specialty are notified to report. An orthopedic surgeon from Jamaica visited the hospital for a week in 1959 and did thirty hip and spinal fusions during his stay. The service which these doctors give and the moral support which they bring are greatly appreciated at Hospital Albert Schweitzer. The resulting benefits help to increase the value of "The Great American Doctor" as compared to the native practitioner of magic medicine for the people of the Artibonite Valley.

FIG. 3. Young patients line up for shots against diseases prevalent in the West Indies. Dr. Mellon prefers to work with patients and let the administration for others.

The practice of medicine at Hospital Albert Schweitzer means dealing with superstitions which have been passed from generation to generation. A few of these have already been mentioned. The people believe that a person with jaundice must not cross a river. There is belief that if a frog urinates in a person's eye, blindness will result and the sight of a frog is reason for panic. The out-patient clinic is silent and inactive on New Year's Day because the Haitian believes that whatever he does on the first day of the year he will continue to do for the remainder

of the year. The high illiteracy rate is perpetuating these superstitions.

One day each month is set aside for immunization. The patients keep their immunization appointments with amazing faithfulness. The program provides immunization for approximately 3,000 people yearly. Although this is a very small percentage of the total population, each year increases the effectiveness of this preventative program. As might be expected, most of those immunized are children. A small pox epidemic could occur at any time. It is a number of years since small pox last swept through the island.

A public health program is desperately needed in the Artibonite Valley to support the work of the hospital. The hospital charter issued by the Haitian Government does not provide for an expanding program of this kind. A missionary minister who spent many years in Africa joined the hospital staff a couple of years ago and heads a Community Development Program. He has been busy with sanitation projects such as drinking wells, out-houses, and shower baths. More recently he has acquired some assistants and is trying to promote vegetable gardening. His activities do include some direct and indirect health teaching.

Patients making their first visit to the outpatient department pay four gourdes or approximately eighty cents. Visits thereafter are three gourdes. This fee includes prescribed medications. Likewise, hospital rates are low. Payment is often made with farm produce. One day I accompanied the social worker to return a discharged child to his home. The family welcomed the child home with a great display of affection. There was considerable exchange of Creole words between the social worker and the mother. Finally, someone brought two bushels of shelled corn to our Land Rover and we returned to the hospital.

It costs approximately $400,000 to finance the hospital annually. Fees provide about $40,000 each year. The remainder is obtained from the Grant Foundation and from gifts made to the Grant Foundation or directly to the hospital. There are many cost areas which are new and different to American hospital accounting. Unclaimed bodies must be buried by the hospital. Often families do not have money to buy lumber for burial boxes. During the recent famine dying children were brought to the hospital more for burial than for medical reasons. The lack of communications necessitates that the hospital transport discharged patients to their homes. A car is in service for this detail eleven to twelve hours daily six days per week. Bad roads and the use of stoney roadways unfit for travel require excessive maintenance. Dr. Mellon keeps a bag of veterinary medications for treating the horses and donkeys who carry patients to the hospital. A hospital employee is assigned to care for the stalls where the horses and donkeys are left during clinic hours.

The eight man medical staff has been chiefly American since the hospital opened. However, through the years there have been physicians from other countries as well—China, India, Union of South Africa. They work mainly through interpreters. A young Haitian dentist has been with the hospital since the early days. Recently three Haitian doctors joined the staff after having had advanced study in the United States. The physicians experience long days and attend many patients. All of them serve in both the hospital and in the out-patient clinic. Doctors come to Hospital Albert Schweitzer under an eighteen months contract.

The nursing staff is composed of Haitian and foreign nurses. Most of the foreign nurses are from Canada and the United States. One nurse came from Germany for a tour of duty and Denmark has been represented by two nurses. French speaking nurses from Canada have an advantage with the language. The average nurse is between 25 and 30 years of age and is a graduate of a hospital school of nursing. About half of the foreign nurses are associated with a world service organization. A contract is consummated for an eighteen months tour of duty. Many of these nurses want to work in a different country and to share their skills with undeveloped people but wish to become affiliated with an institution of American or

Canadian standards. Needless to say, these nurses have a strong sense of adventure.

The professional nurse staff is supplemented by practical nurses and non-professional workers known as "auxiliaries." A few of the practical nurses have had a year of study in the United States but most of them are former professional nurse students who failed to qualify for a third year of study in a Haitian professional school of nursing. Many of the auxiliaries do not read or write. Their experience in life does not do much to prepare them for hospital work. Cleaning and the making of beds are entirely new types of work for these girls. Despite a lack of previous experience with comparable areas of work, they make a fairly good adjustment to the hospital, learn readily and make a good contribution. Some have made remarkable progress and have become valuable assets to the hospital. Mrs. Mellon designed a blue uniform and a blue starched cap for them and they make a presentable appearance when in full uniform. But the cap is more often replaced by the scarf which is almost a standard head covering for the Haitian peasant woman.

It is difficult to appraise the typical American citizen of conditions which exist in a remote area in a country as undeveloped as Haiti. Most of the people who go to Hospital Albert Schweitzer to serve under a contract make a good adjustment to the isolation, the limited recreational facilities, the climate and the mode of living. Many are able to make an agreeable and pleasant way of life. The swimming pool is a popular spot. The riding horses are in daily use. One nurse related that she spent her free time developing a real armchair philosophy. A Canadian nurse made a valuable collection of slides by photographing children with acute and unusual conditions, picturing the appearance upon admission and again after treatment. A laboratory technician spent time in taking colored slides of tropical flowers and plants. Boating and ocean swimming are within range for a person who has a free day. There are points of interest in Haiti which fully merit a week-end excursion. Port au Prince which does not particularly appeal to the typical American tourist is a real metropolis to a person who makes infrequent treks there from the Artibonite Valley. The imaginative, resourceful and creative person seems to fare best. Anyone packing a trunk for an eighteen months tour at Hospital Albert Schweitzer might take limited clothing but lots of things to do.

Miss Walborg Peterson of the Massachusetts General Hospital has been the Director, Nursing Service since the hospital opened. Her fine dedicated spirit has played an important role in the founding and the growth of the hospital. "Miss Pete" has become almost a tradition at Hospital Albert Schweitzer and in Haiti in the few years since the hospital opened. She is a true and good friend to the people of the Artibonite Valley. American nurses can take pride in the fine contribution which she has made.

Religious services are held at the hospital on Sunday evening. If the weather permits, the services are held in the open air on the tennis court. Many of the Haitians in the immediate area attend and some of them sing in the choir. Services are held in English with immediate translation into Creole. In the early days the doctors took turns serving in the pulpit but more recently an ordained minister has conducted the services. The mosquitoes might be on a biting campaign. Two or three dogs might choose that particular hour to release their hostilities on each other and use the tennis court for a fighting ground. Whether it is the closeness to nature or the spirit of Hospital Albert Schweitzer that prevails, the words reach out well and seem to have special meaning for everyone who attends. There are plans to build a chapel near the hospital. It is my hope that the spirit of those out door services can be carried within the walls of this new building.

Any account of Hospital Albert Schweitzer is incomplete without reference to Mrs. Mellon. If this project is succeeding, and there are many reasons to substantiate that it is, then some of the credit must go to Gwen Mellon. In the beginning months she served in many different capacities. All along the way she has given loyal and faithful support. She has been a very definite part of the

"lifeblood" of Hospital Albert Schweitzer. She, too, made sacrifices but never does she reflect with regret. Always she looks to the future in a true partnership with Dr. Mellon.

I have often been asked why I have used my annual leave for three consecutive years to serve as a volunteer nurse at Hospital Albert Schweitzer. This is not easy to put into definite words. My first service was a sort of tribute to Dr. Mellon. I felt that I wanted to help him because he had disrupted his life, expended himself, and used his personal fortune for others. I wanted to be a small part of this self-sacrificing project. I found a very real place and a very real need for my services at Hospital Albert Schweitzer. I became an integrated member of the staff on my very first day. There was a strong desire to return. I believe that those of us who have more should share with those who have less. In today's world it is good to express fellowship with other countries. The personal element of nursing is an especially good way to share with others and to express fellowship. There have been many nursing experiences which have left very satisfying memories. There was Joe who had a heart operation and his prognosis was not good. I was an extra nurse and because of this Joe got special attention throughout his first postoperative day and evening. Each hour increased Joe's chances. His every want and desire were considered. My presence seemed to give Joe the kind of security and confidence that brings relaxation and contentment to a patient. And he was out of bed and walking the day I left. And there have been many infants with tetanus to whom I have given artificial respiration until natural breathing resumed. These are usual experiences in the life of any nurse but when they are up and beyond the call of duty they have a different meaning.

I have often been asked my opinion as to the reason why Dr. Mellon prepared himself as a medical missionary and established Hospital Albert Schweitzer in the backwoods of Haiti. Many newspaper writers have written of his devotion to mankind. Dr. Mellon has been quoted as saying that he has found happiness in helping people no one else was helping and that only those who give can receive. At the time the hospital was dedicated Dr. Ross, the principal speaker, spoke of the miracle of the redirected spirit. I have seen Dr. Mellon in action. His compassion for patients is unequalled. He works with a great spirit of humbleness. His sincerity is earnest and honest. There is no doubt that he gives of himself whole-heartedly. He appears to have strong spiritual values. But all of these do not give the answer fully.

I believe that the guiding principles which Dr. Mellon established for Hospital Albert Schweitzer contain the most plausible explanation. It may be that each person who muses this philosophy may get his own answer. Perhaps this is the best way. These guiding principles are:

"With the people of the Artibonite Valley and of the Republic of Haiti to seek an ever better life in body, mind and spirit, in person, family and community.

"To this end, develop the Hospital Albert Schweitzer as the best possible rural community medical and health center, with services especially stressing medicine, surgery, pediatrics (including immunizations), seeking always to help meet the rising, changing needs of the Artibonite Valley community and of the Republic never forgetting that man in body, mind and spirit and that the only effective ministry to man is to the whole man.

"Seeking, therefore, to serve in these things always in closest unity with the people, in partnership with God, in fellowship with Christ, with reverence for life, all life."

Dr. Larimer Mellon

Have the people of the Artibonite Valley been searching for centuries for the proverbial pot of gold at the end of those magnificent rainbows? Is Hospital Albert Schweitzer that pot of Gold?

A Waiting Room Is a Waiting Room . . . Is a Waiting Room?

By

MAJOR LEONARD BERLOW, USAF, MSC
Whiteman Air Force Base Hospital, Missouri

(With two illustrations)

A plea for better waiting rooms so that the patient can profitably spend his time in comfortable and "living room" surroundings while a busy doctor is attending other patients.

DID YOU ever *wait* in your own Waiting Room? Probably not. For this is the place where "outsiders" must await their turn. Those who work in hospitals can usually manage a "Doc, can I see you for a minute?" appointment—thus avoiding the wait.

Perhaps a golden opportunity has eluded us. An opportunity to see first-hand how these "outsiders" feel inside our hospitals.

Dr. Malcolm T. MacEachern, eminent authority on hospital administration, speaking of the importance of the patients' initial impression, said, "Only indifference and neglect can account for the barnlike appearance occasionally noted in outpatient department waiting rooms. These certainly do not induce a frame of mind in the patient which leads him to have confidence in the care which he will receive in the department."

The mere fact that a waiting room provides chairs, magazines, and an appointment is not enough. If a hospital does only these things, then its attitude toward patients should be examined critically. This may *cause* resentment by patients and *effect* adverse doctor-patient relationships.

There are many ways hospitals can make waiting rooms more attractive. Some require the expenditure of funds, but spending money in this area is an investment that will pay any hospital big dividends—fast.

The complexion of your Waiting Room (and your patients, too) will take on a cheerful air with some bright paint. Bold colors seem to relax already tense patients. A remarkable change was noted in patients' attitudes when the Waiting Room at the USAF Hospital Wright-Patterson, Wright-Patterson Air Force Base, Ohio, was transformed into a "living room" atmosphere by the addition of wallpaper murals on what were once dull walls. Bright paint on door frames and trimmings made this Waiting Room even more impressive.

Changes like these take a great deal of pre-planning and even more imagination. It is advisable to enlist the services of a competent interior decorator. This also adds to the cost, but in the long run it will pay off.

By all means, check your lighting. Antiquated fixtures emitting tiny rays of light only add headaches to already sick patients. Take advantage of that bright new paint to reflect light.

Waiting room furniture need not be ornate. It should be comfortable and relaxing. There must be a sufficient amount to accommodate *all* patients.

Here's an idea that costs nothing to try and is liked by waiting patients. Place chairs in informal groupings. Avoid that formal "railroad station" look with chairs in familiar straight lines—back to back.

Some waiting rooms now include a television set. It's a marvelous way to keep kids occupied while they're waiting to be seen. Adults seem to enjoy Captain Kangaroo and cartoons, too. Ever think of a hobby horse or a playhouse for the children? They sure help the kids forget about what's to come.

A proven, yet inexpensive way to cheer up a gloomy waiting room is with colorful, cheerful pictures. Patients don't *really* want to sit and stare at framed pictures of airplanes or things that remind them of their happy mood—even in the hospital.

Local volunteer workers or Wives' Clubs

Wright-Patterson

VIEW OF WAITING ROOM USAF HOSPITAL

Wright-Patterson

VIEW OF WAITING ROOM USAF HOSPITAL

would like to provide your hospital with curtains—just for the asking. It might be worth looking around for bare windows in need of curtains.

Probably every waiting room has a water fountain. Probably every day at least fifty mothers lift up their "juniors" for that inevitable drink of water. Add a paper cup dispenser next to the fountain. Mothers will be grateful.

For some reason one out of every five patients wants to use a phone in the waiting room. Whether it's to get Hubby to come pick her up, or to check to see if the children are all right at home—they want a phone. Is yours a "down the hall and turn to the right" inconvenience? Why not place one on the counter and *invite* patients to use it with a pleasant sign something like this:

NEED TO USE A PHONE?
HERE'S ONE FOR YOUR
CONVENIENCE
PLEASE LIMIT YOUR CALL

Of course, a nearby telephone booth for longer distances is necessary and appreciated.

Speaking of telephones—consider a separate area, other than the waiting room reception desk, for making telephone appointments. There'll be no more irritating phone interruptions while in-person patients are making appointments.

Cleanliness is an absolute necessity. The most expensive furniture and all the other trimmings will mean nothing if floors are dirty and dust is allowed to accumulate in the waiting room. This area needs *constant* attention because patients come and go 24 hours a day. Ash trays should be emptied frequently. Torn, dirty and outdated magazines indicate indifference toward patients.

What could be less expensive than courtesy? Everyone has a title—and the waiting room is no place to forget it. When announcing the next patient make it, "Mrs. Richardson, *please,*" or "Captain Smith, *please.*" It's such a little thing that will mean much for your hospital.

Why not plan to *wait* in your Waiting Room? It's a wonderful way to find out whether your hospital is doing all it can to make its outpatients' wait a comfortable one.

A Personnel Record System Simplified

By
ALFREDO Z. NEWSOM*

(With two illustrations)

A complicated system of personnel record keeping has been simplified. Now more information can be furnished and man-hours reduced in supplying the information.

THE installation of modern filing procedures and equipment is producing operational economies, better service and faster reference to medical records on Naval Reserve personnel at the 13th Naval District Medical Reserve Component.

By installing central files which provide almost immediate access and complete visibility of records, we reduced by 75% the time required to assemble medical records; cut our access time by nearly 90%; reduced clerical labor costs; and completely eliminated a cumbersome cross-reference file.

To realize the full significance of this new filing system, one must be familiar with the scope of our medical program and its handling.

Throughout the country, medical records for both active and reserve Navy personnel are processed through the headquarters office of the Naval District in which the men are located. In the operation of our medical information file for the 13th Naval District, we process medical records for Naval Reserve personnel in Washington, Oregon, Idaho and Montana. This takes in approximately 24,000 enlisted and 6,000 commissioned Naval Reserve personnel.

As the number of reserve officer and enlisted health records increased to this present volume, our previous method of retaining medical reference material became untenable. This system was an assortment of more than 60,000 3 × 5-inch cards located in separate operating files. This made it necessary to refer to as many as seven different sources to obtain all the reference information to review the status of a single reservist's health record.

Moreover, the great number of transfers into and out of the district each month, in conjunction with the availability of only one clerk to maintain and operate the file, cut our operating efficiency to 20% of optimum.

Because of these numerous problems, a research project was instituted to consolidate, coordinate and eliminate duplication wherever possible. There were two problems to be solved in doing this.

One was the selection of a filing system adaptable to our over-all administrative needs. The other was the determination of what information belonged on a new consolidated form.

As a result of our research program, we installed a VISIrecord system which increased operating efficiency by almost 80%. This gain is due primarily to the rapid reference capacity built into the VISIrecord system. Records in this system—either IBM cards or ledger-type forms—are notched at the bottom for positioning over rods which are built into the housing trays. Under this system, there is no actual contact between guide rods and forms. The function is to position the records so that two surfaces overlap for continuous visibility and easy reference. As many as three dozen separate records can be offset in a single row so that the clerk can identify all cards without touching any one.

Within the VISIrecord tray, all records lean at a 40 degree angle—directly in the line of sight of the clerk. VISIrecord systems are set up with a series of major and minor record group dividers which are also set up for constant visibility. Under this

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The opinions expressed in this paper are those of the author and do not necessarily reflect those of the Department of Defense or the Department of the Navy.

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FIG. 1. Centralized, completely visible record file units have updated the medical information record system.

arrangement, the coding of files is on the major or main group dividers. The clerk reaches for just one divider, pulls it forward and exposes the proper group of records. The first and only document touched in any reference operation is the one which is needed.

Some other key factors in adapting this system to our needs are:

1. The ability of the system to accommodate both posting records and punched cards, giving us full flexibility without sacrificing operating uniformity, which is critical in volume recordkeeping.

2. To further efficiency in both reference and filing, the tray unit, containing Reserve officer medical information—the records most frequently used—is moved easily to any section of the office. Thus, if a clerk is compiling medical information, he can roll the file to his desk and refer directly to it, consequently eliminating time-consuming movement.

3. The visible-vertical files, with locking tops, also provide us with convenient posting space as well as accessibility of records for ready reference.

4. Access to individual records is facilitated further by a vari-color index tab system which enables the clerk to file and find records by group color—a different color for each alphabetical section.

We no longer maintain separate cards and files for information such as orders issued; assignment to drill-pay; pending requests for abstracts of medical treatment; tracer letters sent and received; noncompliance reports issued to the Bureau of Personnel; annual certificate of physical condition; physical risk classifications; quadrennial exam date; and transfer dates.

Under the new system, this information is contained on a single card—in a single location. Two stationary VISIrecord cabinets, each having two individual filing sections, contain all enlisted records. These records—on punched card forms—are arranged in alphabetical order. A third file cabinet, which is movable, contains all reserve officer medical records. These records—on VISIrecord forms—also are filed alphabetically. This separation of the two classifications of personnel is in direct contrast to our former system of filing. Under that system, both enlisted and officer records were intermixed, although in alphabetic order, in several filing locations.

Now, when it becomes necessary to review the physical status of a reservist of the 13th District, this one card—located in one specific file—presents all necessary data. This card contains the complete medical history of the individual, including his original reporting date and all medical transactions since that time. Thus, our District office is able to maintain complete medical records of all personnel, even though the individual's medical record jacket may be filed in the office of a Naval Reserve unit.

The reason commissioned medical information is compiled on VISIrecord card forms is that it must contain approximately 30% more data than for enlisted records. This data volume is too large for a single punched card. However, both record forms have the diagonal and vertical visible margin which is a primary feature of this filing system.

Another factor in the selection of the card forms was a volume consideration. There are, of course, many more records for enlisted personnel than for officers. It is an obvious

advantage to have our greatest volume on punched cards. At the same time, with the many factors connected with officer records, we gain considerable flexibility and information capacity with the form devised by VISIrecord.

While the punched-card forms' visible margin provides space only for name, grade and service number, the VISIrecord form margin allows additional space for tab-coding, detailed letter and number coding. In addition, vital dates and information also can be recorded in the marginal area. Information which is subject to frequent change—such as risk classification and physical examination dates—is recorded in pencil.

The capacity of this visible column provides us with an easily-accessible condensation of an officer's medical record. Quite often, the information we seek is right in the visible margin—eliminating entirely the need to pull the card from the file.

This quick access and immediate visibility of our VISIrecord units provide us with an efficient medical records system—greatly easing the job of our limited staff in the compiling, filing and locating of individual records in response to correspondence or telephone inquiries.

One clerk now can locate any given medical record in approximately 10% of the time required under our previous system. This has had a tremendous effect on the efficiency of our entire staff.

Also contributing to the efficiency is the reduced space requirement of the new equipment. Under the outmoded cross-reference system, record storage consumed large amounts of space and were widely scattered throughout the working area. This factor, alone, had an adverse effect on operating efficiency.

Now, however, with our consolidated

FIG. 2. Movable record tray unit, containing Reserve officer medical records, can be transported easily to any section of the office.

VISIrecord files, all records are centrally located. This allows the clerk to locate several records in a single operation—saving steps, effort and, most importantly, time.

Thus, the use of visible-vertical filing units has greatly improved the effectiveness of our records storage system. We now are able to maintain single-card records that are more effective in our day-to-day administration than were the multiple-card files previously in use.

At the same time, we have achieved new levels of efficiency in locating, consulting and up-dating these important documents.

The over-all effect of our records maintenance system—a fact of considerable import to many medical institution—is a capability of compiling, storing, and reaching a large number of constantly-changing records with a minimum expenditure of money, time and effort.

EDITORIALS

Heroin

ONE of the most damnable institutions that exists in our country is the illicit trade in the long outlawed drug heroin. This drug, a derivative from opium, was at one time in this country used in cough syrups. Its terrible habit forming properties resulted in Congressional action to bar its use even to the medical profession, some of whom protested vigorously at the time.

Forty years have elapsed since the legal use of heroin, but the illicit traffic has increased. We are shocked to learn that an ambassador would stoop to such a low level as to assist in the smuggling of the despicable drug into our country.

We shall now see what punishment will be taken against the ring that perpetrated this recent crime against the American people by smuggling $4 million worth of heroin into our country in order to poison further the bodies of many whose lives have been wrecked already and to start many others on the road to perpetual physical suffering.

America, let's wake up to this communistic venture to ruin our nation by an insidious method that is aimed at the very roots of our country—our Youth.

Only permanent banishment from society of those found to be trafficking in heroin is the answer. For murder it is—a slow death with an interval of torture for those addicted.

Thank You

UNDER ordinary circumstances it should not be too difficult to say, "Thank You." However, on some occasions it may not be so easy to express gratitude. We recently heard of a case of diplomacy in which those words were used.

A department store manager was presented with an item by a customer who alleged there was a defect in the item. The article was dirty, in fact it was filthy. She wanted her money back. "The customer is always right" attitude of the store brought this statement from the manager, "If you will please take this article home and wash it and then return it we will be glad to give back your money."

An indignant woman walked out of the store, to be accompanied later on the return trip by an irate husband and the *clean* article. The irate, but apparently thoroughly domesticated, male blurted to the manager, "My wife has never been so insulted. Here's your !!!!!!! We never expect to deal here again."

The diplomatic manager calmly said, "Thank you, sir, we do appreciate the patronage you have given us."

How many times do we say, "Thank you"? This is the season again to take an inventory of our lives and express our thanks for the good things that have come to us. We can all say, "Thank you, God, for letting us live under the Stars and Stripes."

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Around the World

(Ser. III, No. 25)

By
CLAUDIUS F. MAYER, M.D.

YEMEN, on the southern tip of the Arabian Peninsula, by its natural geographical location at the Strait of Bab el Mandeb, is the sentinel of the Red Sea. The present revolution in the surrounding countries in Africa and the Middle East makes this small country *strategically more and more important.* In the shape of an irregular trapezoid, *Yemen* is some 260 miles long and 110 miles wide, only 70,000 sq. miles, or about the size of Oklahoma. Its geometrical center of gravity is near the intersection of Longitude 45° E. and Latitude 15° N., near the town of Sana'a. Its neighbors are the British Protectorate of Aden on the south, and the territories of Saudi Arabia east and north.

Yemen has three zones which differ from each other geologically, climatologically and culturally. The 40-50 miles wide semi-desert sandy *coastal zone* along the Red Sea is inhabited by a semi-nomadic mixture of Arabs, Ethiopians and Eritreans. They are exposed to an average temperature of 130°F in the shade, to extreme humidity, and to sandstorms. Water is scarce so that to Hodeida, the principal port city, water is brought in on the backs of donkeys. East of this zone is a *high plateau* with elevations from 2000 to 10,000 feet above sea-level. With its cool, pleasant climate, this is the most beautiful part of the whole cultivated Arabian Peninsula, with plenty of precipitation. To the visitor it appears to be an immense garden above which the air is filled with perfume of roses, lilacs, and of many other flowers. This is the part which the writers of classical antiquity called *"Arabia Felix"* (Happy Araby). Here is situated the large town called Sana'a, or Fortress, which has been an important center of trade and commerce since the 14th century. Further to the east and the north, the plateau slopes gently into the third zone of Yemen, and imperceptibly it passes over into the great empty quarter, the Rub'al-Khali desert of Arabia.

About 4 million persons are living in Yemen. The birthrate is high, but so is the rate of *mortality in childhood.* Indeed, the Yemenites provide special cemeteries for their dead children. The town called Taiz, with a population of about 10,000 boasts of the largest children's cemetery. The population falls into categories according to religions, sects of the Islam, and social status. Important it is that Yemen, as other Muslim countries, still has a legal stand for slavery, though, due to social factors, it is becoming more and more costly to hold slaves. Though there is no administration in Yemen in the western sense, the general affairs of the community are well managed according to the ways, laws, and traditions of Islam.

On 20 November 1953, *Yemen* became a *member state of the World Health Organization,* and since July 1956, a Health Center is functioning at Sana'a whose purpose is the demonstration of modern practices in the prevention and cure of diseases, in the control of communicable diseases, and in the organization of the public health service in the whole of Yemen. The WHO provided assistance for this project in the form of 2 medical officers, 2 nurses, a sanitarian, and a laboratory technician as well as by nursing supplies and equipment. This assistance was supposed to bring its fruits by the end of the current year. The Yemenites have also participated in those sections of the regional health program of WHO which chiefly concerned their country. Thus, they attended the Trachoma Conference held in Tunis a year ago.

Yemen is now participating in international activities. Formerly, *under the rule of*

the Imam, everything was done to protect the Yemenites from "atheistic innovations and paganistic teachings." Nothing foreign was allowed; there was no kind of freedom, and public opinion had no outlets. The Imam even feared the influence coming from other Arab countries. After a "revolution" in the forties, the conditions changed somewhat. But, beside the Imam, many other hindrances were in the way of the penetration of western civilization into Yemen. Although the language of the country is Arabic, the number of dialects is too large, and at least 95% of the *people are illiterate.* Communication is primitive. There are now two radio stations, and a few private telegraph sets. In 1947, the Syrian government donated a short-wave broadcasting station, but the weekly programs were controlled by the Imam. Since no receivers were available for the public, few heard the program anyhow.

The country is purely agricultural, and depends on field products. Its principal exports are coffee and hides. Other important crops are barley, wheat and millet. Travel inside Yemen is difficult, and it must be mostly on donkey or mule back. The *state of health is very low.* The more enlightened sheiks and learned men generally have some knowledge of medicine and of cures according to the old Arabic manuscripts of medicine. In addition, there are the old-wife prescriptions, with the use of herbs, drugs, incantation, prayers, amulets, etc. A miniature Qur'an is carried by a person, not for religious motives but since it is believed to be the best charm against the evil-eye. Children of even the better class of people are allowed to run about on the streets in dirty clothes to make them the least attractive in order to keep away the evil-eye from the child. The life of the people and their health is further influenced by the practice of astrology, and by their belief in other mystic and occult powers.

Yemen has three hospitals now: one at Sana'a with 400 beds, one at Taiz with 450 beds, and one at Hodeida with 400 beds. They are staffed by foreign doctors of different, but chiefly Italian nationalities, assisted by Yemenite *hakims* who are sort of apprentices on the side of the doctors. Some Yemenite youngsters are now *studying medicine in Egypt.* Among the diseases, pulmonary tuberculosis is still widespread, with a high mortality rate. Malaria is one of the most incapacitating diseases, also with a high morbidity and mortality rate. Rickettsiasis and relapsing fever are found in the highlands, while bubonic plague is endemic in the northern parts. Trachoma is an extremely common disease, and venereal diseases are also prevalent in all forms.

People in Yemen also suffer from malnutrition and deficiency disease. Part of this may be due to the *popular habit of chewing khat or qat* (Abyssinian tea) about which the Yemenites say that "one can go without food for several days, but not a day without qat." The qat is a woody shrub of the *Celastraceae* family, growing to a height of 10 feet. Its young leaves contain three alkaloids among which cathin is the strongest, having a caffeine-like stimulating effect upon the nervous system. Efforts are being made to stamp out this bad habit, perhaps by replacing it with an American type of chewing gum.

We hear that the *United Arab Republic,* on 17 July 1960, nationalized the *pharmaceutical import business.* Nasser ordered the seizure of all firms importing pharmaceutical products in a move to nationalize the industry in Egypt. This country imported in 1958 over 25 million dollars worth of foreign drugs. A new organization was established which is called the "general authority for pharmaceutical products"; it is charged with the acquisition of medicaments and equipment from abroad. Another organization will take care of the distribution of these articles in Egypt.

Egypt is making great efforts to organize a *health service especially for its youth.* The country has about 24 million inhabitants,

and the number of school-age children is almost 3 million. All children are taken care of by school physicians. The organization of health service in the schools is supervised by the *School Health Department,* including the care for the students of the three universities at Cairo, Alexandria and Ain-Shams. A fourth university is now about to be established at Assiut. Moreover, there is the famous ancient Old-Islamic university of El-Azhar founded in 971 A.D. These universities have a total of 60,000 students, of whom 7500 are medical students, about 500 are veterinary students, and about 7200 are engineer pupils. In spite of the universities, the illiteracy is still 30% in Egypt. The Cairo university has several wings which serve as *hospitals for high-school students.* The main objectives of the youth health service are still the prevention of infectious diseases, of malaria in the northern region of the Nile's delta, and a campaign against bilharziasis in the country districts. Smallpox vaccination is now obligatory; so is the combined vaccination against diptheria, tetanus and pertussis. BCG vaccination has been given for a year. Poliomyelitis has a monthly incidence of about 140 cases. The most frequent disease of Egypt is gastroenteritis.

Egypt, the previously so often visited land for the climatological treatment of tuberculosis, actually has about 250,000 *registered tuberculars.* Among the venereal diseases, syphilis is still taking a rate of 1 to 2% of the total population while earlier the Egyptian syphilitics were so many that about every third man could be considered a syphilitic. Treatment is now by penicillin injections, 10 injections, each of 600,000 units. All in all, the public health services, and especially the youth health services have made tremendous progress in the United Arab Republic.

On the first of October, 1960, *Nigeria* started a three-week celebration of its complete *independence from British colonial rule.* A country of about 36 million people on the gulf of Guinea just where the western hump of Africa bends to the south, Nigeria had had long years of preparation for freedom by British advisers. With this and with thousands of college trained citizens, Nigeria faces independence with a *confidence the Congo never experienced.* Nigeria is composed of a 16 to 96 Km wide belt of mangrove swamp along the sea coast of the Gulf of Guinea. At the north it has a wider zone of tropical rain-forest and oil-palm bush. Beyond that the land rises and becomes open woodland and savannah.

Nigeria is administratively divided into a *Northern, Eastern, and Western Region,* and the Federal government. The headquarters of these regions are Kaduna, Enugu, and Ibadan. The country became a federation in 1954, and the Federal capital is at Lagos. Nigeria is chiefly an agricultural country, and its chief farm crops are canava, yams, corn and millet.

Nigeria is much more (or perhaps, let us say, differently) civilized than the Congo. At the Nigerian College of Arts, Science and Technology, *professional training has been provided,* since 1954, for engineers, pharmacists, accountants, etc. The University College of Ibadan also has a *medical school.* Many Nigerian students still are studying overseas. There are also native institutions for the education for other specialties, thus, in the medical field a School of Pharmacy, School of Dental Technology, School of Radiology, School of Medical Technology, and various training facilities for medical auxiliary personnel.

Small towns, large towns, and small villages make up Nigeria, and some nomadic tribes. The houses are chiefly adobes outside the larger towns. The *medical services are centralized* in 4 separate services according to the administrative regions and the Federal government. This organization is entirely in the British pattern. The smallest units are the "medical areas" which coincide with small administrative divisions. In 1956, *Nigeria had 106 government hospitals* with

9306 beds, 118 mission and private hospitals with 5242 beds, also 40 leprosy settlements. We hope that the newly gained freedom and independence does not make the Nigerians head-strong and power-drunk as it happened to the liberated Congo.

By the way! The *events in Congo* again showed the unselfish humanitarian spirit of the *Red Cross.* Already in July, relief supplies were dispatched to Leopoldville by the International Committee of the Red Cross. The lack of medical personnel in the Congo, and the disruption of the health services caused a serious situation, and the need of medical teams became apparent. These teams, under direct control of the Red Cross, should be working in coordination with the Congo Ministry of Health and with representatives of the WHO who would act as advisers. All the aid and teams are supposed to come from the national Red Cross societies. Norway, Canada, and Lebanon were the first to offer their cooperation by sending *medical teams.* A team is made up either of a physician with surgical training and knowledge of tropical diseases and 2 nurses, or a surgeon and a physician expert in tropical diseases and three nurses. Other countries also joined the donors of medical teams: Denmark, Finland, Iran, Sweden, and Yugoslavia. The Netherlands Red Cross provided a special team for blood transfusion work. The greatest emergency existed in the province of Kasai, and at its main city, Luluabourg, where the hospitals were entirely without medical personnel.

Outbreaks of typhoid fever and salmonellosis recently has been traced to various parts of the world and to *desiccated coconut contaminated* with the Salmonella group. Such infection was first described in Australia in 1953 where all the coconut found to be contaminated had been imported from Papua. Samples of Sinhalese coconut were also found to contain a number of coliaerogenes and paracolon bacteria. Between July 1959 and March 1960, almost a thousand samples of desiccated coconut *imported into Great Britain from Ceylon* were tested by the Public Health Laboratory Service, and in about 100 samples Salmonella bacilli were contained. All the chippings and flakes samples were negative, however. The most contaminated were the coconut flour samples; this flour was milled in Britain from fine coconut. Of course, there are many opportunities for the contamination at any stage of the manufacture of the desiccated coconut. Moreover, the nuts themselves may be permeable to microorganisms. Production of a bacteriologically safe coconut depends upon improvement of the sanitary conditions at the plantations and factories in the country of origin, and in tracing and elimination of the sources of contamination. Naturally, this is a slow process, and perhaps it would be simpler to develop a proper disinfecting method so that people could further eat their coconut puddings, cakes, and confectionery.

The *Medical School of the University of New South Wales,* the second medical school in that state, is well under way. Appointments were made to its five foundation chairs, and it began to take material shape on July 4, 1960 when the foundation stone was set. Two buildings are planned. A seven-floor building will house the first-year medical biological sciences, the school of biochemistry and the university's nonmedical biological activity. Students will be enrolled March next year. The medical course will be of six years' duration, and is such that it will satisfy the full requirements of the General Medical Council.

London's *Royal College of Surgeons* heard about a new disease called *"relative cerebral hypoglycemia"* which was discovered by a Dr. Barry Wyke during research work at the College's department of physiology. In screening over 4000 neurological patients, the doctor found 86 cases of this disease. In its mildest form, the disease produces headaches and tension, or pain in the abdomen, accompanied by loss of

memory. At the other extreme, the patient may collapse into coma. Some victims may suffer from mounting tension troubles and have seizures in which they become violently aggressive, committing unprovoked assaults. These symptoms come when an enzyme which converts glucose into energy has a defect, and prevents sufficient glucose from reaching the brain cells. Diagnosis is made by therapeutic trials with sugar. The trials are checked by repeated recordings of the brain waves with the electroencephalographic method. Once the patient's glucose demand is known, all his symptoms will disappear when he eats enough sugar to raise his blood-sugar level. Though the cause, the ultimate cause, of the disease is still obscure, two types can be distinguished of which one has a genetic foundation, and the other develops by hormonal therapy. It is some consolation to know that at least a group of the *mental patients will get healthy by increasing the carbohydrate content* of their diet.

At the Royal Victoria Maternity Pavilion *in Montreal,* a 31-year old mother gave birth to a 1950 gm. premature infant who then *died after 18 hours from coronary thrombosis* and myocardial infarction. The condition was absolutely proved by electrocardiography, and by subsequent autopsy and histological study of the heart and the coronary vessels. The case has been reported in an authentic, high-level American medical weekly. It is apparently the youngest age at which such a coronary attack occurred.

About a year ago, the physicians of Argentina celebrated the Second *Argentinian Congress of Industrial Medicine* which made a resolution that the working places in all the factories and offices should be provided with a *service of "functional music"* which should be so arranged and programmed as to create a physical, mental and social good feeling in the industrial and office workers. The tranquillizing effect of music has been known for many centuries. Recent physiological studies showed that good music will promote digestion, and prevents easy fatigability. Music has many more salutary effects, and in the Scandinavian Peninsula, Aleks Pontvik established an *Institute of Musical Therapy* for the study of the medicinal influences of music. Good music is also supposed to help mental concentration in a noisy atmosphere.

The World Health Organization's Expert Committee on Hygiene and *Sanitation in Aviation* issued several interesting pamphlets recently. One is a *Guide to Hygiene and Sanitation in Aviation* which includes many details and rules. One of them refers to foodhandlers who are prohibited to spit or to use tobacco in any form in the areas where food is prepared. They must follow many regulations in cleansing dishes and utensils. Air travel brings up many special problems. Being international, the travel brings people into contact with countries where they would not have any resistance to the local diseases. Hence, travellers need special protection. Proper sources of water and food, proper means of disposal of wastes, and proper measures for the *control of insects and rodents* must be provided *by the international airports.* Better measures must also be provided for health protection of the crew of the plane, too. The Expert Committee of the WHO also studied the problems of *sewage and liquid-waste disposal at airports.* The best solution is to discharge such waste to a nearby muncipal sewerage system. This is not always possible, however, due to the remote location of the international airports. In such cases, the airport must provide for its own method of sewage disposal.

Brazilian doctors in the *Piracicaba* area examined the stools of about 10,000 persons of various ages and social status, in a population of 150,000. They found that 53.33% of the stools contained some kind of *intestinal parasite.* The most frequent was Entameba histolytica which occurred in 22% of the positively infested stools. This is a

very high rate in comparison with the findings in France (4.0%) or in England (5.0%). In other parts of Brazil, the amebic infestation of the stool has a rate of from 0.5 to 48%. The individuals who harbor intestinal parasites may have several kinds at the same time. Double infection occurred in 8.54%.

Book reviews are often very interesting reading, even those which are published in medical journals. Editors often give freedom to the reviewers which ordinary authors may not enjoy. And the reviewers, in recompensation, often do their best in producing some miniature masterpieces. One of these delightful gems saw light in the Spring issue of the Journal of the (British) Naval Medical Service where the *irate reviewer,* wishing to hit hard John Winton, the author of a recent marine novel ("We Saw the Sea," Lond., 1960), cautioned the British naval medical officers that the book "is so bad that to write it was a mistake, to publish it was a disaster." . . . *Multa paucis!*

Doctors and nurses throughout Alaska met at Fort Richardson, September 21-23, for the annual U. S. Army-Alaska Surgeon's Conference. Major General J. H. Michaelis, USARAL Commanding General, opened the conference. Colonel Francis L. Carroll, USARAL Surgeon, made introductions. The director of the meeting was Lt. Colonel Donald Myers, Preventive Medicine Officer.

NOTES

Timely items of general interest are accepted for these columns. Deadline is 1st of month preceding month of issue.

Department of Defense

Ass't Secretary (Health & Medical)—Hon. Frank B. Berry, M.D.

Deputy Ass't Secy—Hon. Edw. H. Cushing, M.D.

ARMED FORCES MEDICAL JOURNAL

The October issue of the *Armed Forces Medical Journal* carries this notice to readers:

"The Editors regret to announce that the *United States Armed Forces Medical Journal* will cease publication with the December 1960 issue, completing volume 11.

"As many as possible of the backlog of accepted articles will be published in the remaining issues. Manuscripts for which space cannot be found will be returned to the authors. No additional articles can be accepted."

MEDICAL MUSEUM

The Medical Museum, a department of the Armed Forces Institute of Pathology, is showing the film "Evolution of an Ideal—The AFIP Story" each Sunday, October through May, at 2:00 and 3:00 in the afternoon. It is free to the public and visitors are very welcome.

This film is in color and runs for 30 minutes. The story explains the early beginnings of the Institute, starting as the "Army Medical Museum" in 1862 and brings out the present operation of the Institute with its four departments.

The Armed Forces Institute of Pathology is now located at the Walter Reed Army Medical Center, Washington, D.C. However, the Medical Museum is still at Independence Avenue and 9th Street, S.W. It is here that the film will be shown.

AUTOPSY MANUAL

A new *Autopsy Manual* has been prepared by the Armed Forces Institute of Pathology. The new manual is designed to insure uniformity within the Federal Services in conducting an autopsy.

Much new information is included covering the fields of Forensic and Aviation Pathology, and procedures in toxicological and virology investigations.

Army

Surgeon General—Lt. Gen. Leonard D. Heaton

Deputy Surg. Gen.—Maj. Gen. Thomas J. Hartford

REORGANIZATION OF SURGEON GENERAL'S OFFICE

The reorganization of the Surgeon General's Office of the Army, effective September 1, was the first major change since 1948. It is the result of a year's study.

The principal effect as shown by the chart is the formation of four major directorates. The title of two divisions headed by general officers are changed under the new organization. The office of the Chief, Dental Division is now designated as "Assistant for Dental Services," while that of the Chief Veterinarian is titled "Assistant for Veterinary Services." Both have direct access to The Surgeon General.

DIRECTOR, PROFESSIONAL SERVICES, SGO

Brig. General Robert E. Blount, MC, USA, is now Director of Professional Service, Office of the Surgeon General of the Army. General Blount, previously Chief of the Medical Service at Brooke General Hos-

U. S. Army Photo

BRIG. GEN. ROBERT E. BLOUNT, MC, USA

pital, Fort Sam Houston, Texas, succeeded Brig. General Carl Tempel, now Commanding General of Fitzsimons General Hospital, Denver.

ASSIGNMENTS SGO

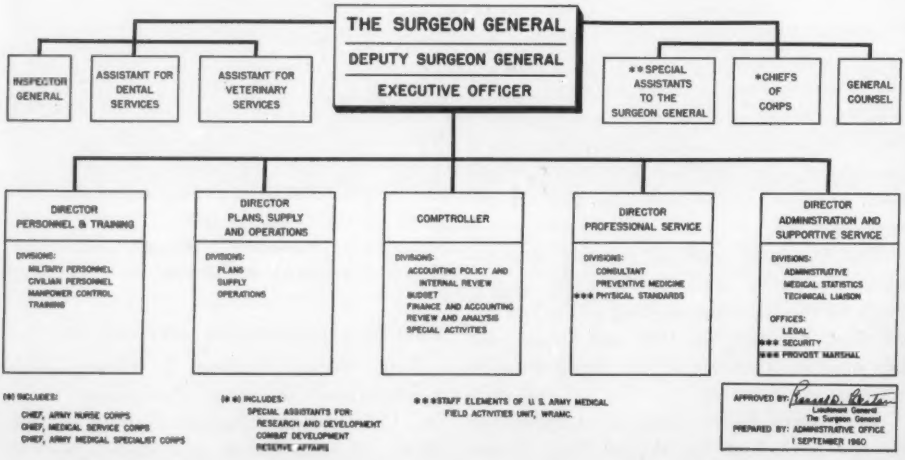
Colonel Frank E. Stillman, Jr., has been assigned as Director Liaison and Special Activities Division, Office for Dependents' Medical Care, Office of the Surgeon General. He will serve as liaison officer between the Army, Navy and Air Force on their dependent medical care problems.

Colonel Stillman was a company commander for the first WAAC Company at Fort Des Moines, Iowa, in July 1942. He came to the Surgeon General's Office from Brooke Army Medical Center where he was Inspector General.

Lt. Colonel Joseph W. Cooch, MC, has been named Assistant Chief, Preventive Medicine Division, Directorate of Professional Service, Office of the Surgeon General.

Lt. Colonel Manley G. Morrison, MSC, who just recently completed the course at the Army War College, Carlisle, Pa., has been assigned as Assistant Executive Officer, and Deputy Director of Administrative

DEPARTMENT OF THE ARMY
OFFICE OF THE SURGEON GENERAL



and Supportive Services, Office of the Surgeon General.

During World War II Colonel Morrison served as Operations Officer with a Separate Medical Battalion attached to the Ninth U. S. Army in Europe. He has earned his Master's Degree and is now working toward a Ph.D. He knows how to budget his time for he has completed many courses while he is engaged in many other activities.

Dr. Philip I. Sperling has been appointed Chief of the Neuropsychiatry and Psychophysiology Research Branch, Research Division, U. S. Army Medical Research and Development Command. He replaces Colonel Charles W. Hill recently retired and who has been named Associate Professor of Psychology at George Washington University, Washington, D.C.

Major Dale R. Maher, MSC, has been assigned to the Supply Division, Directorate of Plans, Supply and Operations, Surgeon General's Office.

Major Robert W. Sherwood, MC, has been appointed Chief of the Communicable Disease Branch, Preventive Medicine Division, Surgeon General's Office.

FIFTH ARMY SURGEON

Colonel Sterrett E. Dietrich, MC, was recently appointed Surgeon, Fifth U. S. Army, which has Headquarters at 1660 East Hyde Park Blvd., Chicago 15, Ill. He succeeded Colonel George E. Leone who retired.

Colonel Dietrich, a University of Pittsburgh graduate, was Surgeon, U. S. Army, Alaska, prior to the Fifth Army appointment.

CHIEF, MEDICINE, FITZSIMONS

Colonel James A. Orbison, MC, has succeeded Colonel Byron Pollock, MC (retired), as Chief of the Department of Medicine, Fitzsimons General Hospital, Denver. Colonel Pollock is now Chief of Medicine at Denver General Hospital.

Colonel Orbison, a graduate of the University of Michigan School of Medicine, entered on active duty in the Army Medical Corps in 1941. During World War II he served in the Southwest Pacific with the 893 Medical Clearing Company and in the Philippines with the 6th Medical Battalion.

ASSIGNED AMSS, BROOKE AMC

Colonel Edward J. Dehné has been assigned to Brooke Army Medical Center, Fort Sam Houston, Texas, as the Director of the Department of Preventive Medicine, Army Medical Service School. Prior to this assignment he was Chief of Preventive Medicine for the Second Army at Fort George G. Meade, Md.

Colonel Dehné, a graduate of the University of Oregon Medical School, received his Masters and Doctorate of Public Health from Johns Hopkins University. He entered the Army in October 1941, and went to Europe with the European Civil Affairs Division in 1944. He has been Chief of Preventive Medicine for the 5th and 3d Army Areas and for the U. S. Army in Caribbean with station in Panama. He also served as Commanding Officer of the Army Environmental Health Laboratory at the Army Chemical Center in Maryland. From 1945-47 he was an advisor on the reestablishment of the German health services.

APPOINTMENT

Dr. Ladd E. Hoover, former lieutenant colonel of the U. S. Army, and recently with the Veterans Administration Hospital at Lebanon, Pa., has been appointed assistant director of the Student Health Service, Lehigh University, Bethlehem, Pa.

OCCUPATIONAL MEDICINE RESIDENCY

The Residency Training Program in Occupational Medicine at the U. S. Army Environmental Hygiene Agency, Army Chemical Center, Maryland, has for its first full-time Resident Lt. Colonel Roswell Daniels, MC, USA.

The program is approved by the Council on Medical Education and Health of the American Medical Association and the

American Board of Preventive Medicine and is affiliated with the University of Cincinnati. The program will provide one year's training in Occupational Medicine in partial fulfillment of the requirements for Board certification in Occupational Medicine.

NURSE RETIRES

Lt. Colonel Maude D. "Denny" Williams, ANC, recently retired from the Army. She has had a colorful career.

From 1930 until 1939 she was a member of the Army Nurse Corps but on her marriage to William R. Williams, an American employed by an oil company in Manila, she resigned her office. The invasion of the Philippines came along; her husband, a Reserve officer, had been called to active duty. She worked with the Army, although a civilian at the time. At the fall of Bataan she and her husband became Japanese prisoners. Her husband died in 1945 when the ship that was taking him to Japan was sunk. She continued to serve as an anesthetist at Santo Tomas Hospital while a prisoner, and then after release in 1945 was flown to Hawaii where General Raymond Bliss, the Surgeon General of the Army, met the group and offered Mrs. Williams a commission in the Regular Army Nurse Corps.

U. S. Army Photo

LT. COL. MAUDE D. WILLIAMS, USA, RET.

Colonel Williams plans to live at 3623 Invicta, San Antonio, Texas.

VERDUN HOSPITAL, FRANCE

The U. S. Army Hospital at Verdun, France has new personnel in three top positions: Colonel Andrew F. Scheele, MC, is the Commanding Officer, recently transferred from Stuttgart, Germany; Lt. Colonel William V. Davis, MSC, formerly Technical Liaison Officer, Surgeon General's Office, Washington, is the new Executive Officer; and Lt. Colonel Dorothy V. Elliott, ANC, is the new Chief Nurse.

Navy

Surgeon General—REAR ADM. BARTHOLOMEW W. HOGAN

Deputy Surgeon General—REAR ADM. EDWARD C. KENNEY

ASSIGNMENTS

Captain Richard F. Dobbins, MC, USN, has been assigned as Head, Radiobiology Branch, Special Weapons Defense Division, Bureau of Medicine and Surgery.

Captain John E. Gorman, MC, USN, has been assigned as Head, Medicine Branch, Professional Division, Bureau of Medicine and Surgery.

Captain Claude V. Timberlake, Jr., MSC, USN, formerly assigned to the Naval Hospital, Philadelphia, Pa., has reported to the Bureau of Medicine and Surgery for duty on the Armed Services Medical Materiel Coordination Committee as Monitor, Class FFC 6505 (Drugs, Biologicals and Reagents).

Lieutenant Commander Robert M. Tennille, Jr., MSC, USN, Executive Assistant to the Director of Medical Service Corps.

Lieutenant Commander Wilhelmina H. Stafford, NC, USN, has been assigned as Head, Personnel Accounting Section, Personnel Branch, Nursing Division, Bureau of Medicine and Surgery.

Lieutenant Frederick S. Caldwell, MC, USN, has been assigned for duty as Medical Member, Physical Review Council, Bureau of Medicine and Surgery.

Lieutenant Hubert M. Goding, MSC, has been assigned as Executive Assistant to the Inspector General, Dental.

RECEIVES COMMENDATION

Captain E. E. Hedblom, MC, USN, was presented recently with a Secretary of Navy Letter of Commendation with Commendation Ribbon and Metal Pendant in recognition of "outstanding performance of duty from May 2, 1955 to April 14, 1959, while serving as Staff Medical Officer, U. S. Naval Support Force Antarctica. Presentation was made by Rear Admiral F. P. Kreuz, MC, USN, Commanding Officer of the National Naval Medical Center, Bethesda, Md.

Official Photo—U. S. Navy

CAPT. E. E. HEDBLOM, MC, USN

FOREIGN OFFICERS AT NNMC

A ten-weeks course was recently conducted at the National Naval Medical Center, Bethesda, Md., for foreign armed forces medical officers to prepare these specially selected officers for higher command responsibilities in their own navies and to familiarize them with U. S. Navy methods, practices, and doctrines.

All the officers were present at the 67th Annual Meeting of the Association of Military Surgeons of the United States and were presented with the badge of the Association and Honorary Membership.

DENTAL CARE FY 1960

These staggering figures for dental care rendered by Navy dental officers during Fiscal Year 1960 are interesting:

Total procedures	7,439,251
Operative, crown and bridge	3,172,865
Prosthodontics	82,559
Oral Surgery	376,223
Periodontics	625,076
Other	3,182,528

MSC OFFICER JOINS NAVY MUTUAL AID

Lieutenant Commander Milton E. Koepke, MSC, USN, recently retired from the Navy after more than 23 years active duty. He will be Assistant Secretary-Treasurer of the Navy Mutual Aid Association, an 81 year-old association which provides insurance protection and aid to dependents of deceased officers. The five plans are available to all active duty officers under 62 years of age.

While in the service Commander Koepke earned his Bachelor of Laws degree from the Washington College of Law of American University.

RETIRED

The following officers of the Medical Department have recently been retired from active duty: Captain Henry T. Gannon, MC, USN, David P. Hightower, MC, USN, Charles Gartenlaub, MC, USN.

Medical Service Corps Officers: Lieutenant Commanders Herbert G. Grantham, James E. Thompson, Walter A. Eslinger Dental Corps Officer: Captain Edmund E. Jeansonne, DC, USN.

Commander Herman E. Hoche, MSC, USN, has retired after 30 years' naval service and has accepted a faculty appointment at the University of Minnesota.

Air Force

Surgeon General—MAJ. GEN. OLIVER K. NIESS

Deputy Surg. Gen.—MAJ. GEN. JOHN K. CULLEN

ASS'T SG FOR DENTAL SERVICES

Brig. General Maurice C. Harlan, USAF, DC, a native of Kansas, has succeeded Major General James C. Cathroe as Assistant Surgeon General for Dental Services, U. S. Air Force. General Cathroe retired on September 30.

ASSISTANT FOR DENTAL SERVICES

Colonel Walter J. Reuter, former Director of Dental Services, Pacific Air Forces, has been assigned to the Office of the Surgeon General, U. S. Air Force. He is Assistant for Dental Services.

He is a graduate of the University of Minnesota (1934). In 1936 he entered the military service. Overseas assignments, in addition to the one in Hawaii, were in the Canal Zone and in Europe.

MOBILIZATION ASSIGNMENT

Dr. Howard A. Rusk, Scarsdale, New York, has been named by the Chief of Staff, U. S. Air Force, to fill an Air Force Reserve Mobilization assignment as Deputy for Reserve Affairs to the Air Force Surgeon General. He is an Air Force Reserve Brigadier General.

Dr. Rusk is professor and chairman of the Department of Physical Medicine and Director of the Institute of Physical Medicine and Rehabilitation for New York University-Bellevue Medical Center. In addition he serves as Chief of Physical Medicine and Rehabilitation at Bellevue and as an associate editor for medicine on the New York Times.

OCCUPATIONAL MEDICINE CONSULTANT

Dr. Richard D. Mudd, Medical Director of the Chevrolet-Grey Iron Foundry, Saginaw, Michigan, has been appointed National Consultant in Occupational Medicine to the Surgeon General of the U. S. Air Force.

Dr. Mudd served with the Army Air Corps from 1941 to 1946 during which time he received 13 citations for his military medical accomplishments. During the Korean Conflict he served as Surgeon, 10th Air Force. He received the Air Force Commendation Medal for outstanding service during that period. He also holds the Legion of Merit award.

CONSULTANT IN VETERINARY MEDICINE

Dr. W. W. Armistead, Dean of the College of Veterinary Medicine, Michigan State University, and a Past President of the American Veterinary Medical Association, has been appointed National Consultant in Veterinary Medicine to the Surgeon General of the U. S. Air Force.

APPOINTMENT, SCHOOL OF AVIATION MEDICINE

Colonel Robert L. Hummer, USAF, VC, who recently returned from an assignment in Wiesbaden, Germany, where he was veterinarian for the Air Force, has been appointed Assistant Chief of Veterinary Services, School of Aviation Medicine, Brooks Air Force Base, Texas.

Colonel Hummer received his doctor of veterinary medicine degree from the University of Pennsylvania and his master of public health degree from Harvard University. Prior to his military service he taught at Kansas State Veterinary School, Manhattan, Kansas.

DIRECTOR OF MEDICAL OPERATIONS

Colonel R. Howard Lackay was recently named Director of Medical Operations at the USAF Aerospace Medical Center, Brooks Air Force Base, Texas. He recently returned from Germany.

ASSIGNMENT

Lt. Colonel David H. Beyer, USAF, MC, has been appointed Chief of the Flight Medicine Branch, School of Aviation Medicine, U. S. Air Force Aerospace Medical Center, Brooks Air Force Base, Texas. He succeeded Major Robert R. Burwell who was transferred to Germany.

SPACE FLIGHT

Two Air Force pilots recently completed the longest simulated space cabin run ever conducted at the Air Force School of Aviation Medicine, Brooks Air Force Base, Texas.

Capt. William D. Habluetzel, 36, Ingleside, Texas, and 1st Lt. John J. Hargreaves, 30, Castle AFB, Calif., entered the 8-by-12 foot cabin at 10:09 p.m. August 15 and emerged September 15 at 6:30 a.m. They spent a total of 30 days, 8 hours and 21 minutes inside the elliptically shaped cabin.

The experiment was designed to test the reliability of component parts of the simulator and to obtain data relevant to manned space flight.

Virtually nothing was overlooked in their post-flight checkups. They were examined thoroughly by heart specialists, respiratory physiologists, hearing and eye specialists, dentists, neuropsychiatrists, and had body fluid samples taken for laboratory examination.

Selection of these two men for the epochal experiment was based upon several factors. Both are pilots, both volunteered and expressed strong interest and a desire to participate in the event, both have had professional scientific training (Habluetzel has a B. S. degree in Biology, Hargreaves a B. A. in Chemistry), and both were pronounced physically and mentally qualified after extensive examinations at the School of Aviation Medicine.

The 30 day experiment was anything but a picnic for them. Unlike the two subjects in the 14 day run last February, Habluetzel and Hargreaves did not have commercial television or magazines for diversion, nor time to enjoy these luxuries if they had been available. In order to give them a realistic feeling of being detached from the world they knew, and to test their reactions to this, all information about the outside world was kept to an absolute minimum.

The only reading material they took into the cabin was two books of short stories, a Bible, and a book entitled *The Green and Red Planet: A Physiological Study of the Possibility of Life on Mars,* by Dr. Hubertus Strughold.

Inside the cabin, the men maintained a demanding schedule. The cabin's Simulated Flight Control Panel had to be manned 22 hours each day, and the men alternated at this. While one was on duty at the panel, the other would calibrate instruments, purify waste liquids to replenish the cabin water supply, eat or sleep, or take his turn at housekeeping.

The Flight Control Panel was developed and built at the School of Aviation Medicine. A stress-performance measuring apparatus, its function in the space cabin was to help scientists determine how isolation, confinement and unique work-rest schedules affected the subjects' reaction times and responses.

Communication with the outside world was extremely limited for the men. Every 90 minutes they gave terse reports on environmental conditions in the cabin: temperature, humidity, carbon dioxide level, water vapor percentage, cabin pressure, etc.

Once each day they reported their blood pressure readings and their temperatures, which had been recorded on an hourly basis. Each subject also spent two hours a day taking an EKG test, which registered his heart activity and respiration rate on recorders outside the cabin. In addition, they made visual examinations of themselves to check for any changes in their vision. Twice a week they took blood samples for chemical analyses from each other and passed them out through the cabin's small airlock.

Throughout the test they carefully noted

and reported the amounts of food and water consumed and the amount of water produced. Their food—about 80 lbs. of it was stored in the cabin for their use—was the same type used in the February run—pre-cooked and dehydrated.

In contrast to the previous run, in which the subjects had their water replenished from outside the cabin, Habluetzel and Hargreaves started out with 22 gallons of fresh water, which was maintained by recycling and purifying the subjects' body water within the cabin. Waste material was disposed of by incineration and "jettisoning."

Public Health Service

Surgeon General—LEROY E. BURNEY, M.D.
Deputy Surg. Gen.—JOHN D. PORTERFIELD, M.D.

NEW DIVISIONS ESTABLISHED

Four new divisions in the Bureau of State Services of the Public Health Service have been established.

The Division of Air Pollution, Chief of which is Vernon G. MacKenzie, will have as his Deputy Dr. Richard A. Prindle. The Division of Occupational Health will have Dr. Harold J. Magnuson as its Chief.

The Division of Nursing, with Miss Margaret Arnstein as Chief, merges two former divisions: The Division of Public Health Nursing and the Division of Nursing Resources.

The Division of Dental Public Health and Resources, with Dr. Donald J. Galagan as Chief, merges the former State Services Division of Dental Public Health and the former Medical Service's Division of Dental Resources.

The organizational changes were based on the recommendations of a task force appointed by the Surgeon General. This force concluded that the two most important health tasks of the next decade were to gain better control over environmental hazards and to coordinate health and medical services so that the full benefits of modern preventive, curative, and rehabilitation service are readily available to all who need them.

COMMITTEE ON POLIOMYELITIS CONTROL

The Surgeon General of the Public Health Service recently announced the formation of the Committee on Poliomyelitis Control. Twenty-three organizations have been asked to designate members to serve on the Committee.

There will be many problems for this committee to consider in view of the recent approval of the Sabin oral type live poliovirus vaccine. The general opinion is that the oral vaccine will best be administered on a community rather than an individual basis. The Salk vaccine will be the type to be used in individual scattered immunization. At least that is the present thinking.

POLIO

Now that the peak of the polio season is past it is somewhat gratifying to report that the incidence of paralytic polio was about 40 percent of that during the 1959 season. For the first 40 weeks of 1960 there were 1662 cases as compared to the same period for 1959 when there were 4284 cases reported.

But as long as there is one case the battle against polio, a disease that blights the life of the young, is not won. We must continue the fight. The only effective means is vaccination. Salk vaccine and soon the oral live poliovirus vaccine will help us to win the battle. But the mere availability of the vaccine means nothing unless it is used. There must be continuous education on this and parents must be urged to see that children are vaccinated.

NIH STAFF CHANGES

Dr. Charles V. Kidd has been named Associate Director for Institutional Relations, National Institutes of Health, Bethesda, Md.

In this position Dr. Kidd will be one of the NIH Director's policy staff and the leading adviser on the development of NIH relations with educational and research institutions.

Joseph S. Murtaugh has been appointed Chief of the Office of Program Planning, Office of the Director, National Institutes of Health. He will be responsible for the development and analysis of data relating to NIH programs.

USPHS EXAMINATIONS

Examinations for physicians and dentists for the Regular Corps of the U. S. Public Health Service will be held January 31, February 1 and 2, 1961.

Appointments will be made in the grades of Assistant Surgeon, Assistant Dental Surgeon, Senior Assistant Surgeon, and Senior Assistant Dental Surgeon. These ranks are equivalent to the Navy ranks of Lieutenant (j.g.) and Lieutenant.

Entrance Pay for the Assistant grade is $7,345 annually; for Senior Assistant is $7,986. Both figures are for those with dependents.

Requirements are U. S. citizenship, graduation from a recognized school for Assistant grade, with an additional three years for Senior Assistant grade.

Completed application forms must be in the Office of the Surgeon General of the Public Health Service, Washington, D.C. by December 2, 1960. Forms may be obtained from the office.

MONGOLISM DUE TO VIRUS?

Dr. Alan Stoller, Chief Clinical Officer of Australia's Mental Hygiene Authority, Mental Health Research Institute, Melbourne, in a lecture recently at the National Institute of Mental Health stated that "A 16-year survey conducted in the state of Victoria indicates that Mongoloid births occur in 'clusters'." Also, "The 'clustering' phenomenon, evident in 40 percent of our cases, strongly suggests that an infectious process may be involved." He says, "We might suspect the Mongolism is caused by a virus or by a combination of viruses."

GRANTS AWARDED

During the fiscal year which ended June 30, 1960, the Public Health Service through its National Institutes of Health at Bethesda, Maryland, awarded 11,743 grants totaling $229,505,503 for research and for construction of research facilities in non-federal institutions.

Approximately 87 percent of the amount went for support of 11,572 research projects concerned with major diseases and various basic problems in the medical and biological sciences.

MONOGRAPH AVAILABLE

The proceedings of the *Symposium on Phenomena of the Tumor Viruses,* National Cancer Institute, published as Monograph No. 4, NCI, is available from the Government Printing Office, Washington, D.C. at $3.00 a copy.

This symposium consists of reports and panel discussions on several phases of research in viruses and their relation to tumors.

PHS PUBLICATION AVAILABLE

Older Persons, (PHS No. 584-C4), a publication of Health Statistics from the U. S. National Health Survey, July 1957-June 1959, is now available for 45¢ from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D.C.

In this 76-page report we learn that the average number of days spent in bed on account of illness by those over 65 is slightly over 14. And you can expect to consult a physician about 7 times a year. But you will visit the dentist about once a year (no teeth for the many!).

Among the illnesses experienced diabetes and cardio-vascular disease ranked high.

This book is packed full of health statistics about older people.

GAMMA GLOBULIN IN BURNS

Injections of gamma globulin may reduce the incidence of post-burn infections by one-half according to Dr. Nicholas A. Kefalides, National Institute of Arthritis and Metabolic Diseases, Bethesda, Md.

This treatment was developed to counteract the overwhelming infections usually

caused by *Pseudomonas aeruginosa,* which is resistant to antibiotics.

The report was made at the First International Congress on Research in Burns held at the National Naval Medical Center, Bethesda, Md., recently.

Also repeated was the fact that a solution of baking soda and salt taken by mouth shortly after a serious burn occurs often prevents burn shock.

X-1497 PROMISING FOR RESISTANT STAPH.

A synthetic penicillin (X-1497) may be effective against certain forms of resistant staphylococcus according to the National Institute of Allergy and Infectious Diseases, National Institutes of Health, Bethesda, Md.

Thus far X-1497 has been found to be resistant to all the strains of staphylococci tested, even those that are resistant to the older penicillins. Further investigation is in process.

Veterans Administration

Chief Medical Director—WILLIAM S. MIDDLETON, M.D.

Deputy Chief Med. Dir.—H. MARTIN ENGLE, M.D.

APPOINTMENT

Dr. Samuel C. Kaim has been appointed as chief of psychiatric research for the Veterans Administration. He will be in the Central Office in Washington.

A native of New York City, he received his medical degree from the University of Zurich. There he served a residency in psychiatry. During World War II he was on active duty with the Army.

APPOINTMENT

Dr. Robert I. McClaughry has been appointed Director of Medical Education Service, Veterans Administration. In his new post at the Central Office of the Veterans Administration he will coordinate programs pertaining to medical education.

Dr. McClaughry is known for his research on blood clotting mechanisms and is the author of many professional articles in this field.

One out of three new physicians and one out 10 professional nurses graduating in the United States receive part of their education in Veterans Administration hospitals.

APPOINTMENT

Dr. Sydney Selsenick, formerly director of professional services at the Veterans Administration Hospital at West Haven, Conn., is now manager of the VA hospital at Boston. He succeeded Dr. Ralph S. Metheny, who became Area Medical Director for the Veterans Administration at St. Paul, Minn.

Dr. Selsenick served in the U. S. Army from June 1941 to January 1946, and was released from active duty in the grade of lieutenant colonel. In May 1946 he became associated with the Veterans Administration.

APPOINTED TO WHO ADVISORY PANEL

Miss Marjorie M. Howard, nursing specialist for education and training in the Veterans Administration Department of Medicine and Surgery has been given an honorary appointment as a member of the World Health Organization's Expert Advisory Panel on Nursing.

Miscellaneous

PROJECT HOPE

Fifty-two drug manufacturers contributed over $780,000 in products and cash to Project HOPE. This project will bring medical services to Indonesia and Viet Nam. This is part of President Eisenhower's People-to-People program.

This commendable project has its headquarters at 1818 M St., N.W., Washington 6, D.C. Contributions are always welcome. To keep this project going will cost in the neighborhood of $3 million a year. The staff which for the most part is a voluntary one will be on a rotating basis, and will be sent to the South Pacific Area to join the ship.

PUBLIC HEALTH PERSONNEL WANTED

Public Health personnel (physicians, toxicologist, nurse supervisors, and nutritionists) may find they are qualified for positions in Illinois. Information of a more complete nature can be obtained by writing to L. L. Fatherree, M.D., Director, Illinois Dep't., of Public Health, 503 State Office Bldg., Springfield, Ill.

THE HOXSEY CANCER TREATMENT

The Hoxsey cancer treatment after years of litigation has been eliminated by a Federal court order. All patients must be notified by the clinic operators who have been holding forth in Dallas, Texas, that the treatment is no longer available. The treatment was shown to be worthless.

EPIDEMIC STAPHYLOCOCCI IDENTIFICATION

A rapid test for the identification of epidemic staphylococci is reported by Dr. B. Moore, Director of the Public Health Laboratory, Exeter, England.

The test depends on the greater resistance or epidemic staphylococci to mercuric salts. It is said to be more rapid than any test now in use.

COMPETITION ESSAY ON GOITER

The Van Meter Prize Award for 1961 offered by the American Goiter Association, Inc., will be presented for the best essay on "Goiter-especially its basic cause." The essay must be original and unpublished. Deadline is January 1, 1961. Further information may be obtained from that Association by writing the Secretary, John C. McClintock, M.D., 702 Madison Ave., Albany 8, N.Y.

INDUSTRIAL MEDICINE FELLOWSHIPS

January 1, 1961 is the deadline date for filing applications for Industrial Medicine Fellowships offered by the U. S. Atomic Energy Commission. Selection is expected to be made no later then February 1.

Information regarding these fellowships may be obtained from A.E.C. Fellowships in Industrial Medicine, Atomic Energy Project, University of Rochester, School of Medicine and Dentistry, Rochester 20, N.Y., Attention: Dr. Henry A. Blair.

PLAGUE

Bulletin (Vol. 23, No. 2-3, 1960) of the World Health Organization on *Plague* is an excellent treatise on the subject. This bulletin is obtainable from the Columbia University Press, New York City, or from the World Health Organization in Geneva. The French and English languages are used in the bulletin which sells for $4.00.

Plague is rarely encountered in the United States but was reported on the West Coast in 1959.

REPORTS AVAILABLE

The following reports are available from the Office of Technical Services, Business and Defense Services Administration, U. S. Department of Commerce, Washington 25, D.C.:

Cooling Methods and Equipment for Supersonic Aircraft, (PB 161731), 159 pp., price $3.00.

Closed Circuit Respiration/Ventilation System, Phase 1, (PB 161747), 111 pp., price $2.50.

Magnetic Shoes for Human Orientation in Space, (PB 161727), 12 pp., price 50¢.

Manual of Surface Electromyography, (PB 161728), 131 pp., price $2.75.

Modification of Techniques for Determining the Uptake of Iron-59 in Newly Formed Red Blood Cells, (PB 161523), 10 pp., price 50¢.

Influence of Prior Body Cooling With Air on Human Heat Tolerance. (PB 161485), 17 pp., price 50¢.

Collected Works on Radiobiology, (AEC-tr-3740), 161 pp., price $1.75.

PUBLICATION AVAILABLE

The Mongoloid Baby is the title of a new publication by the Children's Bureau, Department of Health, Education, and Welfare. This publication is one of a series for parents who have children with a handicapping condi-

tion. It tells what is known about mongolism.

Should the child be kept at home or should he be placed in an institution? What effect will the child have on the parents? What effect will the child have on the children in the family? These are questions that must be answered. The answers and the decisions are not easy to make. This pamphlet for non-professional persons will assist in making decisions.

Copies of the publication are available from the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D.C. for 10¢ a copy.

NEW MONTHLY PERIODICAL

Health, Education, and Welfare Indicators is a new monthly publication by the Department of Health, Education, and Welfare. Subscription price is $3.50 a year and should be ordered from the Superintendent of Documents, Government Printing Office, Washington 25, D.C.

This new publication is intended to provide a handy reference on current developments in the field of human resources. It features up-to-date statistical information in such areas as consumer interests, health conditions, population trends, social security, births, deaths, and marriages.

NUTRITION SYMPOSIUM

A Clinical Symposium will be held in Washington, D.C., November 30, beginning at 8:30 a.m., in Room B of the National Guard Armory (East Capitol St.). The meeting is open to all those interested.

This symposium is sponsored by the Council on Foods and Nutrition of the American Medical Association in cooperation with the Medical Society of the District of Columbia.

MEETING

The American Association for the Advancement of Science will hold its 127th meeting in New York City, December 26-31, inclusive. All 18 Sections of the Association will have programs and approximately 90 affiliated societies of the AAAS will participate. The Director of Public Information for the meeting is Sidney S. Negus, Medical College of Virginia, Richmond, Va.

INTERNATIONAL PSYCHOSOMATIC SEMINARS

Physicians interested in sharing their professional experience with practitioners around the world will be welcome to participate in the International Psychosomatic Seminars scheduled for the winter of 1962-63. Arrangements are now being made since there are many details that must be attended to on such a world cruise which will include approximately 25 ports.

While this is a teaching cruise there will be ample time allowed at the ports for sightseeing. Those interested should communicate with James L. McCartney, M.D., 223 Stewart Avenue, Garden City, New York.

INCAPARINA

Do you know what *Incaparina* is? Well maybe not. It is a vegetable protein mixture having the nutritive value of milk. It was developed at the Institute of Nutrition of Central America. There have been extensive trials of the product in Guatamela and reports of its acceptance have been good. The need for protein in many countries is great, and of particular need is something for the children. Incaparina seems to fulfill that need.

Honor Roll

Since the publication of our last list, the following sponsored one or more applicants for membership in the Association:

Capt. J. S. Shaver, MC, USN
Major George Wells
Col. Robert L. Cavenaugh, MC, USA
Col. James T. McGibony, MC, USA
Mr. Vernon O. Trygstad, VA
Rear Admiral Richard A. Kern, MC, USNR, Ret.
Capt. Julian Love, MC, USN, Ret.
Major Lorenzo Mercado, MC, VAMC
Mrs. M. Marian Wood
Col. Richard S. Farr

Col. Joseph R. Blair, MC, USA
Col. E. R. Wernitznig, MC, USA
Col. Robert E. Bitner, USA, Ret.
Lt. Col. Maurice A. Newman, MSC
Major Richard M. Meiller, MC, USAR
Dr. Robert W. Northrop

New Members

Capt. Vernon R. Konczal, DC, USA
Lt. j.g. Rosemarie R. Pitz, NC, USNR
Capt. Ernest O. Jones, MSC, USA
Lt. Col. John R. Woods, MC, USAR
Lt. Col. Harry Joseph Lee, DC, USAR
Capt. Robert I. Kelfer, DC, USA
LCDR Ella Barber, MC, USN
LCDR Adele M. Hutchings, NC, USNR
S. A. San. Eng. D. A. Larson, USPHS
Lt. Margaret M. Ouchi, NC, USNR
Robert L. Pence, M.D.
Capt. Irvin S. Perry, MC, USAR
Capt. Joseph L. Murad, MC, USA
LCDR Roechina N. Adinolfi, NC, USNR
Asst. Chief Phar. Serv., D. E. Bastian
Lt. Francine H. Bedel, NC, USNR-R
LCDR Sophia H. Gormish, NC, USN
Lt. Anna Marie Nieblas, NC, USNR
Lt. D. Joyce Herrington, NC, USNR
Lt. Col. Leslie Earl Whitehead, Ala., ANG
Lt. Col. John H. Tallmadge, MSC, USAR
Major Roger T. Sherman, MC, USAR
Col. John H. Lesher, MC, USAR
Capt. Dixon A. Lackey, Jr., MC, USAR
S. A. Surg. George M. Howard, USPHS
Lt. j.g. Mary Anne Bittner, NC, USNR
LCDR Emily K. Allison, NC, USNR
Colonel Arthur M. Ginzler, MC, USAR
Lt. Jane S. Greene, NC, USN
Major Earl Haltiwanger, MC, USAR
Lt. Joyce Skinner, NC, USNR
Miss Jessie J. Dunnam
Capt. Richard P. Huemer, MC, USAR
Lt. Constance F. Kinley, NC, USNR-R
Major Kennedy B. Batchelder, MSC, USAR
1/Lt. Waldo H. Goglin, MSC, USAR
Capt. William Dennis Rippy, MC, USAR
LCDR Loretta C. O'Connell, NC, USNR-R
LCDR Anna Mae Daly, NC, USN
Lt. Col. Jack D. Fisher, DC, USAR
Lt. j.g. Helen D. Hanson, NC, USNR
Capt. Bernie G. Hewett, MC, USAF
1/Lt. Lathan T. Moose, MC, USAR
Lt. Ruth F. Davis, NC, USNR
S. A. Surg. Joseph F. Alderete, USPHS
1/Lt. Sidney T. Griffin, MC, USAR
Stanley M. Levenson, M.D.
Col. Edwin S. Wallace, MC, USA
Major Ann Bosshard, NC, USAF
Lt. j.g. Blanche Irene Dube, NC, USNR
Lt. Vera P. McLaughlin, NC, USNR, Inac.
Miss Cora H. Solberg, R.N.
Major Ellayne E. McAlpine, ANC
Major Adele M. Ball, NC, USAF
Lt. Evelyn M. Hatteberg, NC, USNR
Lt. j.g. Marion Jeanne Hull, NC, USNR
LCDR Josephine M. Knott, NC, USNR-R
Major Carl F. Romans, MC, USAR
Major Robert J. Pfaff, MC, USAR

MEMBERSHIP COMMITTEE

Commander Calvin F. Johnson, MSC, U. S. Navy, Chairman
Mr. George F. Archambault, U. S. Public Health Service
Commander Burdette M. Blaska, NC, U. S. Navy
Lt. Col. Jesse W. Brumfeld, MSC, U. S. Army
Lt. Col. Nathan Cooper, U. S. Air Force, (MSC)
Mr. Vernon O. Trygstad, Veterans Administration

Deaths

PENHALLOW, Dunlap P., Colonel, Medical Corps, Reserve, Retired, died at Philadelphia, New York, on August 7, two days before he would have reached his 80th birthday.

Colonel Penhallow was a native of Amherst, Mass. He had received his B.Sc., and M.D. degrees from Harvard University, the medical degree being received in 1906. In 1900 he enlisted in the Massachusetts Volunteer Militia and became a captain in the Militia. At the outbreak of World War I he was commissioned a major in the Medical Corps of the Army Reserve, and saw service in France. After World War I he joined the

Public Health Service, and later entered the private practice of surgery in Washington, D.C. Here he was on the staffs of Georgetown and Howard Universities. In 1936 he was promoted to the rank of Colonel, Army Medical Corps Reserve. In 1941 he entered on active duty with the Army and became Medical Inspector for the Second Army Corps. In 1942 he became Commanding Officer of the Army hospital and Post Surgeon at Pine Camp, New York. This position he held until his retirement in 1945. Then he went to Watertown, New York and finally to Philadelphia, New York.

Colonel Pennhallow held the World War I Victory Medal with five battle clasps, the British General Service Medal, the Medaille Commemorative de la Grande Guerre (French), Army of Occupation (Germany) (World War I), and the American Defense Medal and Victory Medal of World War II. He was a contributor to medical literature. He was a Life Member (40-year) of the Association of Military Surgeons of the United States. Fellow of the American College of Surgeons, and a Member of the Medical Society of New York State.

He is survived by his wife, two daughters, and one son.

Interment was in Arlington National Cemetery.

KIRK, Norman T., Major General, Medical Corps, U. S. Army, Retired, died August 13 at Walter Reed General Hospital, Washington, D.C. His age was 72.

General Kirk was Surgeon General of the Army from 1943-1947 at which time he retired, having served in the Army Medical Corps for 37 years. He was a native of Rising Sun, Maryland. In 1910 he received his medical degree from the University of Maryland, and was commissioned in the Army Medical Corps in 1912. Early in his Army career he specialized in surgery and then took up the specialty of orthopedics in which field he distinquished himself.

He was a contributor to medical literature and his book, "Amputations" was world renowned. He was among the contributors for several loose-leaf surgical works, and in addition had written many articles for medical journals.

His assignments in the military service carried him to many foreign countries. He served at a number of the Army general hospitals and had been Chief of the Surgical Service at Walter Reed General Hospital.

General Kirk held membership in many professional societies. His military decorations were many, and one of the highest was the Distinguished Service Medal of the United States.

He is survived by his wife who resides at the home in Montaux, New York, and two daughters.

ROSS, Ralph D., Captain, Medical Corps, U. S. Navy, died at the U. S. Naval Hospital, Bethesda, Md., September 18. He was 47.

Captain Ross, a native of Sterling, Kansas, received his medical education at Northwestern University, receiving his M.D. degree in 1942. He was commissioned in the Medical Corps of the Navy after graduation. At the time he entered the hospital in the spring of 1960 he was Head of the Training Branch, Professional Division, Bureau of Medicine and Surgery. He had also served as Head, Medicine Branch of the same Division. He had specialized in internal medicine and tropical medicine.

He is survived by his wife and three daughters, 5622 Yorktown Blvd., Arlington, Va.

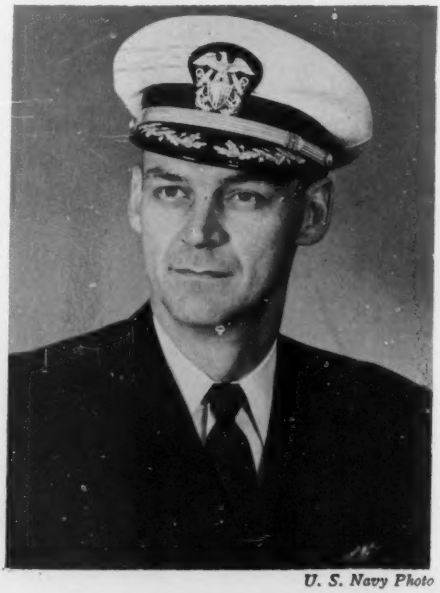
Interment was in Arlington National Cemetery.

AWARDS

Presented at Honors Night Dinner, 67th Annual Convention,
Mayflower Hotel, Washington, D.C., November 2, 1960

THE SIR HENRY WELLCOME MEDAL AND PRIZE

The Sir Henry Wellcome Medal and Prize is awarded annually through the Association of Military Surgeons of the United States by the Trustees of the Wellcome Foundation in London for the best essay on a military medical subject. The award consists of a Silver Medal, a scroll, and an honorarium of $500. The winner of the 1960 award is Commander John H. Schulte, Medical Corps, U. S. Navy, formerly a medical officer on the USS *Halibut,* now a student at the School of Industrial Medicine, Cincinnati, Ohio. The title of his winning essay is: "The Medical Aspects of Closed Cabin Control." This will be published in the January 1961 issue of MILITARY MEDICINE.



U. S. Navy Photo

CDR JOHN H. SCHULTE, MC, USN

Commander Schulte, a native of Cincinnati, Ohio, received his premedical education at Xavier University, Cincinnati. He served in the U. S. Army during World War II, and after the war completed his medical course, graduating from the University of Cincinnati College of Medicine in 1948. He served his internship and residency in Internal Medicine at the U. S. Naval Hospital, San Diego, California.

His request for submarine duty was favorably acted on and he was sent to the School of Submarine Medicine at the Submarine Base, New London, Conn. After spending two years as a Squadron Medical Officer he returned to the School of Submarine Medicine as an instructor. He has received special training in nuclear medicine and was ordered to the pre-commissioning crew of the USS *Sargo,* and also that of the USS *Halibut.* He is now on a Fellowship in Industrial Medicine.

HONORABLE MENTION in the competitive essay contest for the Sir Henry Wellcome Medal and Prize was given to the essay "The Community in Disaster" by Colonel E. S. Chapman, Medical Corps, U. S. Army, Director, Department of Military Science, Army Medical Service School, Brooke Army Medical Center, Fort Sam Houston, Texas. Life Membership in the Association of Military Surgeons has been awarded to Colonel Chapman for his excellent essay which will be published in MILITARY MEDICINE.

Colonel Chapman received his medical degree from the University of Southern California Medical School in 1938, an M.P.H. degree from the University of North Carolina in 1958. He is a graduate of the Command and General Staff College, the Armed

U. S. Army Photo

COL. EDWIN S. CHAPMAN, MC, USA

Forces Staff College, and the Army War College. His military service dates from October 1940. He is presently on his third tour at the Army Medical Service School.

THE GORGAS MEDAL

The Gorgas Medal is awarded for distinguished work in preventive medicine for our Armed Forces. The award was established by Wyeth Laboratories of Philadelphia in memory of Major General William Crawford Gorgas whose work in preventive medicine made possible the construction of the Panama Canal. This award consists of a Silver Medal, a scroll, and an honorarium of $500.

The Gorgas Medal for 1960 is awarded to Captain David Minard, Medical Corps, U. S. Navy, Naval Medical Research Institute, National Naval Medical Center, Bethesda, Maryland.

The award was made for his outstanding contribution to the field of Preventive Medicine as related to Heat Stress. His study and research of the effects of heat on the human body and the application of the principles established by that research have significantly reduced the morbidity and mortality in training commands, aboard ship, and in tropical and subtropical climates.

Captain Minard is a graduate of the University of Chicago Medical School (1943), and prior to his medical education had received the B.S. degree (1935), and a Ph.D. degree (Physiology) from the same University. He taught Physiology in the University of Illinois while pursuing his course in medicine. Following his internship in the U. S. Naval Hospital at Bethesda he served with the Amphibious Forces in the Atlantic and Pacific areas. From August 1946, except for sixteen months during 1953 and 1954 when he attended the Harvard School of Public Health, he has been at the Navy Medical Research Institute, National Naval Medical Center, Bethesda.

Doctor Minard is an authority on Heat Stress, has done much research on the sub-

U. S. Navy Photo

CAPT. DAVID MINARD, MC, USN

ject, and is the author and co-author of many papers dealing with that subject.

THE MAJOR LOUIS LIVINGSTON SEAMAN PRIZE

The Major Louis Livingston Seaman Prize is made possible through funds left for that purpose with the Association of Military Surgeons of the United States by Major Louis Livingston Seaman, a Surgeon of the First U. S. Volunteers, Spanish-American War. The prize is given for some notable article published in MILITARY MEDICINE during the year, and consists of a scroll and an honorarium of $160.

The Prize is awarded this year to Harold G. Wolff, M.D., 525 E. 68th Street, New York, N.Y. for his article "Every Man Has His Breaking Point—(?)" which appeared in the February 1960 issue of MILITARY MEDICINE.

THE STITT AWARD

The Stitt Award is made to a member of one of the Federal Medical Services who has done some outstanding work in the field of antibiotics. The award was established in 1954 through the courtesy of Pfizer Laboratories, Division of Charles Pfizer and Company, Inc., Brooklyn, New York, and consists of life membership in the Association of Military Surgeons of the United States, a bronze plaque, and an honorarium of $500.

LEWIS J. GRIFFITH, PH.D.

The 1960 award is made to Lewis J. Griffith, Ph.D., Veterans Administration Hospital, Batavia, New York.

Dr. Griffith, a native of Ohio, served in the infantry during World War II. Ohio State University granted him a B.S. degree in 1948, an M.Sc. degree in 1950, and a Ph.D. degree in 1953. During the completion of the requirements for his Ph.D., he served as a graduate student in the Department of Bacteriology at Ohio State University. His first appointment in the Veterans Administration was as a Bacteriologist at the Butler, Pa., Veterans Administration Hospital. In his duties with the Veterans Administration he has been actively engaged in research in antibiotics and staphylococcus disease.

THE McLESTER AWARD

The McLester Award was established in 1954 by the J. B. Roerig Company Division, Charles Pfizer and Company, Inc., Brooklyn, New York, to honor the memory of Colonel James Somerville McLester, MC, USAR, Birmingham, Alabama. The award is presented to a person who is, or has been, at any time a commissioned officer, or has held relative status in the Federal Medical Services, and who has done some outstanding work in the field of Nutrition and Dietetics. The award consists of a bronze plaque and an honorarium of $500.

The 1960 award is made to Miss Beatrice Finkelstein, M.S., Chief, Food Technology Section, Life Support Systems Laboratory, Aerospace Medical Division, Air Research and Development Command, U. S. Air Force, Wright-Patterson Air Force Base, Ohio. She has pioneered in the field of

nutritional research as it applies to the problems of future manned space vehicles.

Miss Finkelstein, a native of New York, received her A.B. degree from Hunter College, New York City, with a major in physiology and a minor in chemistry. She received her M.Sc., degree from Columbia University in nutrition and chemistry. Further graduate studies in the field of nutrition and sociology have been pursued at Washington State College, Syracuse University, and Iowa State College. Experience was further obtained from her associations with the Food Clinic of the Boston Dispensary, the Dietary Department of the Johns Hopkins University Hospital, and the Nutrition Division of the Community Service Society in New York City. She has held Assistant Professorships in Foods and Nutrition at the Alabama Polytechnic Institute, Yale University and Syracuse University. Since 1952 she has been associated with the U. S. Air Force. Her present responsibilities relate to the determination of nutritional requirements and the development feeding programs for crews in flight, in situations of survival and those contemplating space travel.

Air Force Photo

MISS BEATRICE FINKELSTEIN, M.S.

THE FOUNDERS MEDAL

The Founders Medal is awarded by the Executive Council of the Association of Military Surgeons of the United States for meritorious service in the field of military medicine and for some notable work done for the Association.

U. S. Navy Photo

REAR ADM. CURTISS W. SCHANTZ, DC, USN

The recipients of this medal and the scroll which accompanies the Medal are:

Rear Admiral Curtiss W. Schantz, Dental Corps, U. S. Navy, Assistant Chief of Bureau of Medicine and Surgery for Dentistry, Navy Department, Washington, D.C., and General Chairman of the 67th Annual Convention of the Association of Military Surgeons of the United States.

Captain Clifford P. Phoebus, Medical Corps, U. S. Navy, recently Director, Astronautical Division, Bureau of Medicine and Surgery, Navy Department, now Commanding Officer, U. S. Naval School of Aviation Medicine, Pensacola, Fla.

U. S. Navy Photo

CAPT. CLIFFORD P. PHOEBUS, MC, USN

THE SUSTAINING MEMBERSHIP AWARD

This award established in 1958 is made possible by the Sustaining Members of the Association of Military Surgeons. The award is to be given to a person in the Federal Medical Services who has made some outstanding contribution in the field of research. The award consists of a scroll and an honorarium of $500.

The 1960 Sustaining Membership Award is made to David McKenzie Rioch, M.D., Director, Division of Neuropsychiatry, Walter Reed Army Institute of Research, Walter Reed Army Medical Center, Washington, D.C.

Dr. Rioch was born in India. He is a graduate of Johns Hopkins Medical School. He has been a member of the faculties of Johns Hopkins Medical School, Harvard Medical School, and Washington University School of Medicine, where he was Chairman of the Department of Neuropsychiatry and Professor of Neurology. Since 1951, he has been Director of the Division of Neuropsychiatry at the Walter Reed Army Institute of Research.

Dr. Rioch has contributed extensively to medical literature. He is cited for this award especially for his outstanding contributions to neuropsychiatry in the matter of training personnel.

U. S. Army Photo

DAVID MCKENZIE RIOCH, M.D.

ANDREW CRAIGIE AWARD

The Andrew Craigie Award was established in 1959 by the Lederle Laboratories, Division American Cyanamid Company, Pearl River, New York. This award honors the memory of Andrew Craigie, first Apothecary General of the military forces of our country, who served under General Washington during the Revolutionary War. The award, a silver plaque, is made for outstanding accomplishment in the advancement of professional pharmacy in the Federal Government.

The 1960 Andrew Craigie Award is made to Pharmacist Director Thomas A. Foster, U. S. Public Health Service, Retired, Washington, D.C.

Mr. Foster, a native of Alabama, joined the Public Health Service in 1933. In 1942,

PHARM. DIRECTOR THOMAS A. FOSTER, USPHS, RET.

he began an eight-year assignment as Chief of Supply and Procurement of the Public Health Service and served in this capacity during the War and during the rapid expansion of the responsibilities of the Public Health Service. His responsibilities in the Office of the Surgeon General of that Service brought him into intimate contact with the pharmaceutical manufacturers and suppliers of medical equipment. His broad knowledge of the medical supply field in our country was made available to the Office of Civil Defense Mobilization to which he was assigned at the time of his retirement from the Federal Service.

THE FEDERAL NURSING SERVICE AWARD

The Federal Nursing Service Award was established in 1960 through the courtesy of Hoffman-La Roche, Inc., Nutley, New Jersey. This award will be made each year to a member of the nursing profession employed by the Federal Government for outstanding accomplishment in or contribution to the advancement of professional nursing. An essay is submitted in competition. The Award consists of an honorarium of $500 and a scroll.

The winner of the first award is Lieutenant Patricia Hope McIntyre, Nurse Corps, U. S. Naval Reserve, Assistant Head, Nurse Corps Training Division, Naval Medical School, Bethesda, Maryland.

The subject of Lieutenant McIntyre's essay is "Report of Three Years Study and Experience in Establishing a New Teaching Device for Use by the Professional Nurse in the Ward Situation."

Lieutenant McIntyre holds a baccalaureate degree and a master of science degree. She has instructed in public health nursing, held positions in visiting nursing and school health nursing. She has served four years in the active naval service.

Madlon Studios

LT. PATRICIA H. MCINTYRE, NC, USN

THE WILLIAM C. PORTER LECTURE

The WILLIAM C. PORTER LECTURE which is sponsored by the Smith Kline and French Laboratories of Phila-

delphia to honor a pioneer in military psychiatry was established in 1958. The third lecture was given at the 67th Annual Convention of the Association of Military Surgeons by Manfred S. Guttmacher, M.D., Chief Medical Officer, Medical Service of the Supreme Court of Baltimore. His subject was "The Mental Deviant and the Military." This lecture will appear in *Military Medicine* in 1961.

William C. Porter was a graduate of the Albany Medical College of Albany, New York (1907), and served as psychiatrist with the New York State Hospital Service until 1918 when he was commissioned in the Army Medical Corps. He served as a psychiatrist in the Army until his retirement in 1947 when he became Superintendent of the Los Lunas Hospital and Training School, Los Lunas, New Mexico. He was in that position when he died September 24, 1955.

THE SUSTAINING MEMBERSHIP LECTURE

In 1958 the Sustaining Members of the Association of Military Surgeons of the United States established the SUSTAINING MEMBERSHIP LECTURE. The purpose is to bring to our members at the Annual Meeting a prominent person who has a message on an important medical problem of the day.

The Lecturer for the 1960 Meeting was The Honorable John E. Fogarty, Member of Congress, U. S. Representative from Rhode Island. His subject was "Aging and Medical Progress Through Research." This will be published in *Military Medicine* in 1961.

THE RADIATION EXPOSURE EVALUATION LABORATORY

NATIONAL NAVAL MEDICAL CENTER, BETHESDA, MD.

(See cover)

On October 14, 1960, the Radiation Exposure Evaluation Laboratory at the National Naval Medical Center, Bethesda, Maryland, was dedicated. This is a center for evaluating individuals suspected of exposure to radiation and for managing and treating patients actually exposed.

The steel for the four steel rooms is armor plate pre-1945 steel obtained from the Naval Ordnance Plant, South Charleston, West Virginia. This steel was machined to 8 feet square plates, 4 inches thick. Two plates were fastened back to back to give a thickness of 8 inches. Each plate weighed 16 tons, a total of 21 plates being used.

These rooms constructed underground provide a low radiation background for whole body counting. Other parts of the building have the laboratories and surgery which are staffed with physicians, nurses, physicists, and others especially trained in radiation.

NEW BOOKS

Books may be ordered through this association.

Cellular Aspects of Immunity. Ciba Foundation Symposium. Edited by G. E. Wolstenholme, M. B., M.R.C.P., and Maeve O'Connor, B.A. Little, Brown and Company, Boston. Price $10.50.

Obstetrics. From Original Text of J. B. DeLee. 12th Ed. J. P. Greenhill, M.D., and 23 contributors. W. B. Saunders Company, Philadelphia and London. Price $17.00.

Lipids and The Steroid Hormones in Clinical Medicine. Proceedings of an Applied Seminar of the Association of Clinical Scientists. Edited by F. William Sunderman, M.D., and F. William Sunderman, Jr., M.D. J. B. Lippincott Company, Philadelphia and Montreal. Price $10.75.

Diagnostic Roentgenology of the Digestive Tract with Contrast Media. A Mount Sinai Hospital Monograph. By Bernard S. Wolf, M.D., Mansho T. Khilnani, M. B., and Arthur Lautkin, M.D. Grune & Stratton, New York and London. Price $8.75.

Space Biology. The Human Factors in Space Flight. By James S. Hanrahan and David Bushnell. Basic Books, Inc., New York. Price $6.00.

Cardiac Emergencies and Related Disorders. Their Mechanism, Recognition and Management. By Harold D. Levine, M.D. Landsberger Medical Books, Inc., New York. Price $12.00.

Endemic Goitre. WHO Monograph Series No. 44. (English) French and Spanish editions in preparation. Columbia University Press, IDS, 2960 Broadway, New York 27. Price $8.00.

Visual Aids in Cardiologic Diagnosis and Treatment. A Monograph. Edited by Arthur M. Master, M.D., and Ephraim Donoso, M.D. 23 contributors. Grune & Stratton, New York and London. Price $10.00.

What Price Medical Care? A Preventive Prescription for Private Medicine. By Sir Earle Page, F.R.A.C.S., D.Sc. J. B. Lippincott Company, Philadelphia and New York. Price $3.50

Nine Months to Go. Advice for expectant mothers and fathers. By Robert McNair Mitchell and Ted Klein. J. B. Lippincott Company, Philadelphia. Price $3.95.

McGraw-Hill Encyclopedia of Science and Technology. 15 vols. In Preparation. Order direct. McGraw-Hill Book Company, Inc., New York.

Sea Within. By William D. Snively, Jr., M.D. J. B. Lippincott Company, Philadelphia and Montreal. Price $3.95

Synopsis of Pathology. 5th Ed. By W. A. D. Anderson, M.D., F.C.A.P. The C. V. Mosby Company, St. Louis. Price $9.25

Essentials of Pharmacology. 4th Ed. By Frances K. Oldham, Ph.D., M.D., and F. E. Kelsey, Ph.D., and E. M. K. Geiling, Ph.D., M.D. J. B. Lippincott Company, Philadelphia and Montreal. Price $7.75.

American Pharmacy. 5th Ed. Textbook of Pharmaceutical Principles, Processes and Preparations. Edited by Joseph B. Sprowls, Jr., Ph.D. 20 contributors. J. B. Lippincott Company, Philadelphia and Montreal. Price $10.75.

The Dispensatory of the United States of America. 1960 Ed. New Drug Developments Volume. Edited by Arthur Osol, Ph.D., et al. J. B. Lippincott Company, Philadelphia and Montreal. Price $9.00.

Every Serviceman's Lawyer. By Major Earl Snyder, LL.B., LL.M., Judge Advocate, U. S. Air Force. The Stackpole Company, Harrisburg, Pa. Price $3.50.

Diabetic Care in Pictures. 3rd Ed. Simplified Statements with illustrations prepared for the use of patient. By Helen Rosenthal, B.S., and Joseph Rosenthal, M.D., J. B. Lippincott Company, Philadelphia and Montreal. Price $4.50.

Treatment of Cardiovascular Emergencies. By Aldo A. Luisada, M.D., and Leslie M. Rosa, M.D., McGraw-Hill Book Company, Inc., New York, Toronto, London. Price $4.95.

Outline of Pathology. By John H. Manhold, Jr., D.M.D., F.A.C.D., and Theodore E. Bolden, D.D.S., Ph.D., W. B. Saunders Company, Philadelphia and London. Price $4.75.

Occupational Diseases and Industrial Medicine. By Rutherford T. Johnstone, M.D., and Seward E. Miller, M.D., W. B. Saunders Company, Philadelphia and London. Price $12.00.

Differential Diagnosis of Yaws. (English Edition) (French and Spanish editions in preparation). World Health Organization Monograph No. 45. By C. J. Hackett and L. J. A. Loewenthal. Columbia University Press, IDS, 2960 Broadway, New York 27. Price $3.25.

Rypins' Medical Licensure Examinations. 9th Ed. Edited by Walter L. Biering, M.D., with collaboration of a panel of 14 reviewers. J. B. Lippincott Company, Philadelphia and Montreal, Price $11.00.

BOOK REVIEWS

BAMBOO DOCTOR. By Stanley S. Pavillard, M.D. St. Martin's Press, New York. Price $4.50.

When the Japanese overran Malaya in 1942, Dr. Pavillard was caught in the trap. For the following three years as a prisoner of war, his experiences were not those which he expected when he went to Malaya in 1940.

In this book he relates his experiences in the jungle country with its malaria, cholera, and skin diseases. Without the benefit of sufficient drugs and supplies, and further handicapped by poor rations, inhumane treatment, and insanitary conditions he met the situations the best he could.

Ingenuity, improvising, and a feeling of personal responsibility to his countrymen kept Dr. Pavillard working against great odds. This courage and determination kept many men alive. He himself came through the experience and is now practicing medicine at Las Palmas, Canary Islands.

This story is another that can be added to the accomplishments of medicine and could well set an example to those of us who have everything to work with and yet keep on complaining.

R. E. BITNER, M.D.

MOS 1542. By John C. Angier, III. 59 pp. Greenwich Book Publishers, New York. Price $2.50.

A personal account of Sergeant Angier's experiences as an infantryman in World War II, this little book is a highly readable report of the drive through the Vosges Mountains into the heart of Germany. The most fascinating aspect of the book is that it does not pretend to give the "big picture." Neither does it "expose" the army nor dwell on sensational sordidness. It is a good honest relating of an ordinary American's reaction to combat. As such, it deserves to be read by all who have not personally endured land warfare. Highly recommended for an hour's reading.

MAJOR SAMUEL L. CROOK, MSC, USA

WE'LL BE HOME FOR CHRISTMAS. By Emilio Aguirre. 91 pp. Greenwich Book Publishers, New York. Price $2.50.

In this book Sergeant Aguirre reports the actions of his platoon, a part of the 1st Marine Division, from Inchon to the Chosin Reservoir. Written as though it were being spoken during an old soldier's reminiscences to a recruit, the tale tends to be redundant in spots. This weakness is tolerable because of the obviously deep comradeship which the author found in his fellow marines. In fact, the book's chief interest is its reflection of the emotional ties which combat can engender between men, rather than any factual accounting of military action. An interesting and rather disturbing book.

MAJOR SAMUEL L. CROOK, MSC, USA

FIRST AID. DIAGNOSIS AND MANAGEMENT. 5th Ed. Edited by Warren H. Cole, M.D., and Charles B. Puestow, M.D. with 16 contributing authors. 420 pp., illust. Appleton-Century-Crofts, Inc., New York. Price $6.25.

The first edition of this book was "prepared in early 1942 because our entrance in World War II produced an increased demand for knowledge of first aid." The value of the book can well be appreciated since it is now in its fifth edition.

A knowledge of first aid should extend to every level of society and the day may come when the subject will be required in all elementary and high school grades, advancing from the very elementary points of first aid in the elementary grades to the advanced courses in high school.

Mechanization, high speed vehicles, the ever increasing threat of long range missiles with the possibility of disasters of any proportion, large or small, make a knowledge of first aid imperative for everyone. There is never enough medical personnel available for catastrophes. If more persons trained in first aid were available in catastrophes a lesser burden would fall on the professional medical personnel thus saving their time and energy for the definitive type of care that will be needed by so many.

It is important for one to know what not to do as well as what to do. This point is stressed in the very first chapter of the book.

In this work Cole and Puestow have produced a text on first aid that should attract the attention of the professional medical person as well as the student of first aid. The book may be somewhat advanced for the beginner but after some elementary knowledge is gained he should advance himself in the subject by the information contained in *First Aid.*

The 25 chapters in the book prepared by the various authors cover every conceivable first aid situation. The authors have kept well in mind the first aid features of the book for that is why it was prepared.

This comprehensive work is recommended to the

professional medically trained person and to instructors in first aid. Doctors, nurses, and students of first aid will find in this book the information they need in a really useable form.

R. E. Bitner, M.D.

Anatomy. A Regional Study of Human Structure. By Ernest Gardner, M.D., Donald J. Gray, Ph.D., and Ronan O'Rahilly, M.Sc., M.D. 999 pp. W. B. Saunders Company, Philadelphia and London. Price $15.00.

An appealing approach differing from the usual textbook of anatomy is offered. This appeal is brevity and it is written so that it is easily readable. The footnotes and bibliography are intermingled, and this together with the very instructive but large quantity of fine print appreciably detract from the main text. If the latter were placed at the end of the chapter, the authors' first of three major aims, namely "To provide a textbook that is sufficiently brief for the undergraduate medical and dental student during the present shortened course in human anatomy" might be more easily accomplished. This rather unique and appealing book deserves wide usage, especially by these students.

Brig. Gen. James H. Forsee, MC, USA

Communicable and Infectious Diseases. Franklin H. Top, M.D., with 21 contributors, 812 pp., illustrated. C. V. Mosby Company, St. Louis. Price $20.00.

This nicely printed and beautifully illustrated book covers in a comprehensive fashion all of the common and most of the rare infectious and contagious diseases. In addition to the senior author, 21 other authorities in their respective fields were collaborators. Included are excellent reviews on infection and immunity, the specific prevention of certain communicable diseases, thorough coverage of chemotherapeutic and antibiotic agents plus chapters on the management of communicable diseases in the hospital as well as in the home. The various individual diseases are authoritatively presented in a concise and readable manner.

Two minor points were noted on which many physicians will take issue: (1) That all children developing measles should have an initial cathartic, and (2) the advocacy of ACTH in the emergency management of acute anaphylactoid reactions; actually the response to ACTH in acute anaphylaxis is considered to be too slow to be dependable. Otherwise this is a superb text.

Col. Robert E. Blount, MC, USA

Edema. Mechanisms and Management. A Hahnemann Symposium on Salt and Water Retention. Edited by John H. Moyer, M.D., and Morton Fuchs, M.D.; 123 contributors. 833 pp. W. B. Saunders Company, Philadelphia and London. Price $15.00.

The pathogenesis of edema is a complex phenomenon encompassing some aspects of nearly every medical specialty. This is an edited collection of 112 formal papers presented at the Hahnemann Symposium on Edema. Both research and clinical aspects of the subject are covered in this representation of current knowledge.

The papers are presented by title in several sections. Part I covers fluid and electrolyte balance in a basic physiological approach. The section on electron microscopy of the kidney is an exciting reading experience to the imaginative physician. Excellent photographs and diagrams are given to show the results of this advance in anatomical knowledge. Some of the papers dealing with physiological aspects are tedious to read but they are filled with information for new thoughts if not with proof of certain concepts. A paper on thirst mechanisms in edema offers practical clinical guidance. Aldosteronism is given ample discussion.

The papers dealing with the pharmacology and therapeutic uses of diuretics are detailed. They cover the diuretics by their chemical classes and describe the structures, laboratory considerations and results of clinical applications of the many compounds used clinically and experimentally. A discussion of iatrogenic edema occupies only a short section in the book but it provokes serious reflection for the clinician. Some interesting and helpful suggestions are to be found here. Theory, mechanisms and treatment of hypertension, toxemia of pregnancy and premenstrual tension, edema of renal origin, congestive heart failure and edema associated with liver disease are well covered in the remainder of the book. It is in this last half that practical information of value to the physician is most evident.

There are twenty panel discussions included which follow each group of formal papers. These are helpful and interesting to the reader. They serve to point out the fact which the authors state in their preface; i.e., that though much has been learned about the subject of edema, much more remains to be understood. Because this is a compilation of papers given at a symposium, there is, by their nature, considerable repetition of material. However, this will not detract from the book, for it is likely that is will be read more by subject or group of subjects rather than as a book at a continuous reading. It serves as an excellent reference both by its own content and by the extensive bibliographies following each paper. Very few conclusions or summaries are included.

An occasional humorous note is to be found in the midst of this tremendous collection of technical material. For example, the mechanism of water

transport in the bedbug is briefly discussed. Historical and philosophical remarks, such as the treatment prescribed for dropsy in 1866, add to the reading pleasure of this useful text.

HENRY L. HOOK, M.D.

SURGERY AND CLINICAL PATHOLOGY IN THE TROPICS. By Charles Bowesman, O.B.E., B.A., M.D., F.R.C.S.E., F.A.C.S., D.T.M. 1068 pp., illust. The Williams & Wilkins Co., Baltimore, exclusive U. S. agents. Price $22.50.

This book differs from most medical textbooks as it is interesting to read from cover to cover, like a novel, although it can and likely will be used as a reference book. The author's experiences in the tropics and in the field of tropical medicine and surgery have been many and varied. He relates his operations in small districts with a minimum of medical facilities and in large, well equipped medical centers. Consequently, he learned to use his ingenuity and powers of observation in many different and difficult situations.

Although the book is titled "Surgery and Clinical Pathology in the Tropics," it actually embraces the entire field of tropical medicine and surgery. The author treats the patient as an individual and not just a patient who needs an operation. Therefore, skin diseases, malaria and numerous other complications must be treated before and after surgery.

All systems and branches of surgery are covered, with an especially interesting section devoted to the surgery of pregnancy. It appears that the surgeon of Africa is also the midwife, and the complications of pregnancy are more prevalent and serious than many of us have been aware of; since we have been taught that the primitive peoples have babies as easily as chickens lay eggs.

There are many (one wishes there were more) interesting illustrations of cases not usually seen in temperate climes, and of cases much further advanced than we see them. Superstition, fear of surgery, and inaccessibility of the medical facility contribute to this factor.

This book should be, and undoubtedly is, a valuable addition to the armamentarium of any personnel working in the tropics, especially those in isolated areas. The undersigned has spent considerable time in Guam and in the South Pacific and can appreciate what a help a reference book like this can be. To those of us who now are practicing in equable climates with all modern facilities available, it is encouraging to know that the pioneer spirit of medicine is still alive, that excellent medicine and surgery are available in remote places, and that clever diagnoses can be made by the use of the five senses and adequate surgery done with a minimum of equipment.

The chapter on anesthesia is complete and describes technics to overcome the difficulties of inhalation anesthesia where ether and chloroform evaporate so rapidly that open drop methods are not practical.

In conclusion, this is an excellent book that fulfills a real need. It covers a tremendous amount of material in an interesting fashion and should be invaluable to those who need it. It is very well indexed and documented with a list of references after each chapter to stimulate those who are interested in pursuing further information.

CAPT. L. L. BEAN, MC, USN

ATTENUATED INFECTION. THE GERM THEORY IN CONTEMPORARY PERSPECTIVE. By Harold J. Simon, M.D., Ph.D. Forewords by René J. Dubos, Ph.D., and Walsh McDermott, M.D. 349 pp. J. B. Lippincott Company, Philadelphia. Price 10.00.

This excellent monograph presents "a picture in which infectious processes appear not as a form of warfare between a vicious parasite and a defensive host, but rather as normal manifestations of the constant interplay between living things," according to Dr. Dubos.

The book is divided into five sections—Part One includes definitions, which are so necessary to establish early in a volume of this type; Part Two, general aspects and determinants of attenuated infection; Part Three, attenuated infection in tissue culture; Part Four, attenuated infection in man and Part Five, an epitome. Each section is clearly written and well organized with subheadings.

The fine line between the carrier state, microbial persistence and latent infection is clearly drawn and although many would feel that such would be impossible, this volume presents a wholly refreshing approach which could only be found in a complete review of the literature on this subject. The sections on stress and attenuated infection and clinical aspects of attenuated infection in man present many concepts of direct clinical importance. The delineations of some of the more important determinants of host-parasite interactions are facets of clinical practice which are too often either not considered or understood. Since illustrative examples are drawn from the study of infection in plants, insects and animals as well as detailed consideration of attenuated infection in man this book will be of immense interest to all research workers in the field of biological science.

COL. WARREN C. EVELAND, USA, RET.

RECENT ADVANCES IN CLINICAL PATHOLOGY. Series III. 31 contributors. 425 pp., illust. Little, Brown and Company, Boston. Price $11.50.

This volume is an excellent review of advances in laboratory medicine within the last ten years. It is

written as much for the clinician as for the pathologist. Methods are described in broad terms and technical details are omitted. Some of the subjects covered are: Laboratory Diagnosis of Toxoplasmosis; Treponemal Tests for Syphilis; Serum Enzymes in Cardiac Infarction; Indole Metabolism; Hemoglobinopathies; Use of Radioactive Chromium in studying Erythrocyte Survival and Blood Volume; Use of Radioactive Iron in the study of Erythropoiesis and Iron Metabolism and the Serodiagnosis of Rheumatoid Arthritis.

The section on histology includes well illustrated accounts of the histological diagnosis of fungal infections and of renal biopsies. There is also a good description of cytological tests of chromosomal sex.

Advances in laboratory medicine occur at such a rapid pace that some such volume as this is essential to the clinician who wishes a critical evaluation of the newer technics and procedures.

COL. HUGH R. GILMORE, JR., USA, Ret.

PHYSICS AND MEDICINE OF THE ATMOSPHERE AND SPACE. Proceedings of the Second International Symposium held at San Antonio, 1958. 645 pp. John Wiley & Sons, Inc., New York. Price $12.50.

The papers collected in this volume were among those presented at the Second International Symposium on Physics and Medicine of the Atmosphere and Space held at Brooks Air Force Base in San Antonio, Texas, in November 1958. This symposium was sponsored by the USAF School of Aviation Medicine and arranged by the Southwest Research Institute of San Antonio. The book itself was edited by Major General Benson, the Commander of the USAF Aerospace Medical Center, and Dr. Hubertus Strughold, Professor of Space Medicine at the same institution. The symposium was timed to meet the conclusion of the International Geophysical Year and included the latest data then being assembled.

The book well illustrates the great advances that have occurred in space medicine since the establishment of the Department of Space Medicine at the School of Aviation Medicine over a decade ago. Dr. Strughold, a pioneer in this field, has defined space as a "radiation environment in a very thinly dispersed material medium of gaseous matter and dust, crisscrossed by meteors of all sizes; it is in contrast with the atmosphere which is essentially a dense material gaseous environment permeated by relatively mild radiations." The characteristics of the environment in space receives by far the greatest attention in this book. Other major topics include the radiations inherent in space, and the laboratory simulation of space characteristics. Attention is also directed to such topics as weightlessness, vehicles for space exploration, successful escape in disabled space vehicles, and the pertinent medical implications of space travel.

As a result of the medical evaluation of astrophysical and astro-chemical data as well as from applied experimentation both with devices capable of simulating space phenomena and by either manned flight into space equivalent regions and rocketing of animals into space, much insight has been gained into the problems of space flight.

Among the medical problems discussed weightlessness presents one of the most uniquely space inherent phenomenon. The whole evolutionary process leading to the development of man has been conditioned by the fact that we are living at the bottom of a sea of air which protects us from the radiation hazards inherent to space, provides the proper gas exchange, and affords the necessary support to tissue fluids to keep them from boiling. This evolutionary process has occurred also under the constant exposure to a force of lg gravity. Man's neurologic and circulatory systems have thus been conditioned by the force of gravity. With the exposure to zero gravity, many of the receptor end organs loose their stimulation and the hydrostatic blood-pressure disappears. This suggests the profound way in which continuous exposure to weightlessness may affect vital physiological functions.

Radiation hazards of space operations as discussed in this book include the corpuscular radiations, that is, cosmic radiations, the Van Allen Radiation Belts, and the radiations which may eminate from the vehicular nuclear power plants. The papers presented at the Symposium provided not only up to date information but also outlined future avenues of approach to the present seemingly unsurmountable areas. The book is unique in that it includes the work of both physical and biological scientists as it relates to the problems inherent in manned space flight.

In summary, this book is not only a most useful source of data for the many investigators in the field, but it can also be recommended to all interested in the scientific challenge of manned space flight.

HARRY WEINRAUCH, M.D.

INDUSTRIAL PULMONARY DISEASES. A symposium. 23 contributors. Edited by E. J. King, M.A., D.Sc., F.R.I.C.; and C. M. Fletcher, C.B.E., M.D., F.R.C.P. 273 pp., illust. Little, Brown and Company, Boston. Price $8.50.

This compact book contains the papers of a symposium on the subject held at the Postgraduate Medical School of London. It contains a clear and concise review of occupational lung diseases, in form interesting and enlightening to the many varying fields of medicine.

Some twenty-three authors have collaborated in giving a review ranging from the broad "low

power field" look of the historian and epidemiologist to the "high power field" view of the histologists, physiologists and clinicians. Although many of the chapters relate to the pneumoconioses of coal workers, there is a sufficient variety of subject material presented in chest radiography, lung cancer and bronchitis among agricultural, mining and foundry communities to interest a wider scope of readers. The chapter on the prevention of Silicosis is particularly apt in pointing out the physician's role in the universal problem of ignorance and apathy towards dusty occupations.

The fine bibliography found at the end of each chapter tends toward a preponderance of British references; however, many American authors are noted. This book can be recommended highly for all physicians associated with persons working in dust producing industries, whether the physician be in public health, clinical medicine, occupational medicine or radiology.

COL. MAX B. MCQUEEN, USAF, MC

BASIC FACTS OF BODY WATER AND IONS. By Stewart M. Brooks, M.S. 159 pp. Springer Publishing Company, Inc., New York. Price $2.75.

This paperbound book is ideally suited for use in a School of Nursing curriculum. Presentation of the normal as well as the pathologic physiology of water and acid-base balance, and the electrolytes is accomplished in a simple, condensed fashion that will not befuddle the beginning student. It could well serve as a primer for medical students, too; its basic and direct approach should be a comprehensible introduction to the subject. A nine page glossary of terms used in the text will aid the student reader materially.

ROBERT F. DILLON, M.D.

GASTRIC CYTOLOGY. Principles, Methods and Results. By Rudolf Otto Karl Schade, M.D., M.R.C.S. 83 pp., 85 figs. The Williams & Wilkins Co., Baltimore, exclusive U. S. agents. Price $8.00.

All workers in the field of internal medicine and gastro-enterology will welcome this masterful monograph on gastric cytology. The author's published results add proof to the diagnostic value of meticulous study of shed epithelial cells from the stomach. Some skeptics were finally convinced by the work of Papanicolaou, and, since then, many other workers have demonstrated the practical results of gastric cytology in early diagnosis.

The late Dr. B. B. Vincent Lyon pioneered in this field using an astringent lavage with repeated aspiration and return of the lavage solution with subsequent cytologic study. And this work he began in 1915 (Amer. J. Med. Sc. Sept. 1915).

This volume on gastric cytology is important since it defines a simple harmless technic and provides many excellent microphotographs of cytologic specimens of normal and pathologic states. The reader will be impressed with not only the high diagnostic promise, but the great degree of meticulous attention to detail and laboratory requirements.

The author gives his opinion of the relationship of cytodiagnosis to histopathology and stresses the advantage of cytology in making early diagnosis possible in gastric carcinoma.

For the student of gastro-enterology, this classic text is of academic importance since it covers the history, basis, and technic of gastric cytology, and contains a large bibliography for additional reading.

AUGUSTUS A. HALL, M.D.

CLINICAL ORTHOPEDICS. No 16. The Foot. Anthony F. DePalma, Editor-in-Chief. 315 pp., illust. J. B. Lippincott Company, Philadelphia and Montreal. Price $7.50 (single vol.), $6.00 (member).

The 16th volume of Clinical Orthopaedics, of which Dr. Anthony F. DePalma is editor-in-chief, consists of 22 articles devoted to the foot and several additional items of general orthopaedic interest. The authors of these articles are widely known in this specialty and they speak from broad personal experience. However, most of the material has previously appeared in print in one form or another. Nevertheless, it is still of value to again have contact with the viewpoint of the respective authors.

A wide range of material is presented. The volume begins with discussions of skeletal development and anatomical studies of the foot and then proceeds to the clinical problems. Only one article on fractures of the foot is presented. Of interest are the articles on peroneal spastic flat feet, hallux valgus and varus and surgery of the arthritic feet. Metatarsus varus is discussed from several points of view. A comprehensive essay on tibial torsion is presented by Dr. J. Hiram Kite. Aspects of club foot and vertical talus are also discussed.

In summary, the subject is of considerable interest, the choice of authors is excellent, but little new information is provided.

ALEXANDER MILLER, M.D.

SURGERY OF REPAIR AS APPLIED TO HAND INJURIES. 2nd Ed. By B. K. Rank, C.M.G., A. R. Wakefield, M.S., F.R.A.C.S. 284 pp., illustrated. The Williams & Wilkins Company, Baltimore, exclusive U. S. agents. Price $9.00.

This small volume, now in its second edition, is written by two eminent Australian surgeons. It represents their wide experience, and is further based upon sound principles accepted by all who

practice hand surgery. Due recognition is given to such masters as Sir Harold Gillies, Sterling Brumell, and Sumner Koch.

This book presents its information very clearly, and covers an enormous amount of material in a short 284 pages. There is a remarkably good section, although brief, on the surgical anatomy of the hand followed by the major section on primary treatment of hand injuries, including both tidy and untidy hand wounds. Next, a section on intermediate treatment emphasizes unhealed wounds of the hand and re-establishment of joint mobility. Secondary treatment of hand injuries is discussed and is high-lighted by plastic considerations as related to skin, nerve, and tendon repair. The final portion is devoted to special aspects of hand injury: burns, hand injuries in children, and hand prosthesis.

Little new is presented here. A positive approach, which is also refreshingly written, makes this book useful, especially for the young surgeon who is striving to understand basic principles as well as to apply them. The choice of illustrations is excellent, and line drawings supplement well the abundantly used photographic reproductions. The type and layout of this work makes for easy reading and comprehension of the authors' ideas.

Anyone treating injuries to the hand should read this book.

CAPT. ROBERT H. BROWN, MC, USN

P-Q-R-S-T. A GUIDE TO ELECTROCARDIOGRAM INTERPRETATION. 4th Ed. By Joseph E. F. Riseman, M.D., Harvard Medical School. 168 pp., illust. The Macmillan Company, New York. Price $6.50.

Dr. Riseman describes his book as a pocketsize, bedside instructor for the beginner in electrocardiology; a supplement to the larger texts. It will perform this function admirably in the field of adult electrocardiology, and might well be a required book for the intern and medical resident. The emphasis on "underreading" is excellent. Its tables are concise and lucid. Pediatric electrocardiology is omitted—probably advisable in an elementary text.

The QT interval and u wave are ignored; these are important in electrolyte imbalance. More stress and detail might be given to the Sokolov and Meyer criteria for the diagnosis of ventricular hypertrophy. An alphabetical index would facilitate rapid reference.

Thirty pages are devoted to case studies with clinical and electrocardiographic correlation. These are readable and instructive but are more appropriate to the study room than to the bedside. The space saved might well be devoted to a development of hemodynamic explanation and comparison with spatial vector cardiography (Grishman or Grant), which the author dismisses as, "confusing . . . to the uninitiated."

LT. COL. R. B. FRANKLIN, MC, USA

MANUAL OF BLOOD MORPHOLOGY. 9th Revised Ed. By Lydia Schudel, Zurich University. 53 pp., 18 plates. J. B. Lippincott Company, Philadelphia and Montreal. Price $4.50.

This paperbound manual has 18 superb illustrations in color that depict normal bone marrow cell maturation, the various leukemias and anemias and other conditions such as infectious mononucleosis. The erythrocyte morphology plates are exceptionally good.

Text material is quite limited; there are instructions for preparation of coverslip blood films, the Fonio method for platelet counting, Sato's peroxidate stain, the combined May-Grunwald-Giemsa stain and the Wolfer method for staining reticulocytes. The remaining text consists of word descriptions related to the cell types shown in the illustrations. All this material has been printed in triplicate: in German, English and French.

Robt. F. Dillon, M.D.

RECENT ADVANCES IN BIOLOGICAL PSYCHIATRY. Edited by Joseph Wortis, M.D. 417 pp., illust. Grune & Stratton, New York and London. Price $13.50.

This book is based on the Proceedings of the Fourteenth Annual Convention of the Society of Biological Psychiatry and consists of reviews of general, as well as specific investigative work, by more than seventy contributors, concerning body-mind integration. Outstanding review sections are those involving the significance of brain amino-acid metabolism, electroencephalographic conditioning and psychopharmacologic research. There is an interesting additional section on the analysis of the sex impulse which comprises the Havelock Ellis Centenary Symposium.

The presentation and discussion of the neurology of motivation is stimulating and forms the base upon which the varied research disciplines of anatomy, physiology and chemistry present their material. The material is well organized, illustrated and has attached source bibliographies. Many sections will be of useful reference to workers in the related fields concerned.

JAMES F. HAMMILL, M.D.

PROFESSIONAL SCHOOL PSYCHOLOGY. Edited by Monroe G. and Gloria B. Gottsegen. 287 pp. Grune & Stratton, New York. Price $7.75.

This book is a compilation of discussions and evaluations of many of the current problems that face the practitioner of school psychology. The contributors are well selected and pre-eminent in the

field of school psychology and related disciplines. The organization of the book is intelligent and effective. There are four major sections. The first section discusses the school and community and includes chapters on the influences of suburbs, middle-class-urban neighborhoods, the deprived neighborhood, prejudice, and a psychoanalytic analysis of the psychodynamics of school-staff relationships. An isolated chapter in this first section discusses the advantages of social service facilities by the school environment. There are chapters in group testing, individual testing, phobias, psychotherapy, parental help, the consultative method, and teacher-child conflicts. Section III is devoted to problems confronting the school psychologist that derive from the emotionally disturbed child, the retarded child, the gifted child, and the borderline psychotic. The final section is devoted to looking ahead. There is a chapter on research in school psychology and a chapter on the future of school psychology.

In general this book does a commendable job of providing the school psychologist with an expansive survey of his problems and responsibilities. The book also provides current techniques for the management of many of his problems. In short, the objectives of the authors are realized. There are, however, some weaknesses. The sum of the many contributions does not add up to a full coverage of the field of school psychology. The subjects covered vary in treatment from sophisticated and esoteric theses to quite elementary and superficial discussions. One overriding problem is covered very loosely. The relationship of line (the teacher) and special staff (the school psychologist) is left poorly defined. Yet, this relationship may well determine the effectiveness of the school psychologist's efforts.

Lt. Col. Reuben A. Baer, USAF, MSC

Essays on the First Hundred Years of Anesthesia. Vol. 1. By W. Stanley Sykes, M.B.E., M.B., B.Chir.D.A. 171 pp., illust. The Williams & Wilkins Co., Baltimore, exclusive U. S. agents. Price $7.00.

Dr. Sykes makes excellent use of his extended bibliography and illustrations in presenting a book about which much has been written. This book should appeal to the student and the practicing anesthesiologist, as well as the practicing and philosophical physician.

The description of Victorian England, during which time anesthesia made its entrance, is one which will surprise the physician of today. I do not think that any physician reading this account would have ever realized the role of the doctor in both the society and the military of that period. However, this is merely background for the events which are to come in the ensuing chapters. The impact, or rather the foibles of anesthesia, are aptly brought about by the numerous quotations from the actual correspondence between the American and British physicians, and also the articles from *The Lancet*. One point of interest to many would be the accounting of the Surgery done by Dr. Bigelow using Dr. Morton's Lithion (ether) prior to its use at Massachusetts General Hospital by Dr. Warren. A sort of dress rehearsal to insure its acceptance. During these procedures, premedication in the form of 40 minims of laudanum was used.

Dr. Sykes writing in the form of essays goes on to discuss the seven pioneers of anesthesia in the order of their merit. He also dabbles in the various faux-pas of the early administration of anesthesia.

A great section of the book is devoted to the use and abuse of chloroform, and the Syme-Simpson versus the Snow school of anesthetic approach.

The book is written with a great deal of the wit and humour for which many British authors are noted.

Murray Rosen, M.D.

Pediatric Anesthesiology. 2nd Ed. By M. Digby Leigh, M.D.; M. Kathleen Belton, M.D.; in collaboration with George B. Lewis, Jr., M.D.; and Edward B. Scott, M.D. 461 pp., illust. The Macmillan Company, New York. Price $12.00.

This is a much needed revision of a widely accepted, well organized text book which keeps it abreast of the developments in the field of anesthesiology of infants and children. Especially noteworthy is the conciseness, brevity and clarity of description of clinical details of diseases encountered in pediatrics which would influence the choice of preanesthetic drugs, method and type of anesthesia, and post anesthetic care. The descriptions of a few disease entities suffer from brevity, but this is outweighed by an appropriate bibliography at the end of each chapter.

The format of this book is excellent. The book is divided into four sections: (1) evaluation of the patient; (2) anesthetic agents, techniques and equipment; (3) preanesthetic medication and preparation; and (4) anesthetic management of surgical procedures. Each section is generously illustrated with diagrams, sketches, photographs, and reproductions of roentgenograms which are excellent. The sections are organized under classifications of pediatric diseases and pediatric surgical procedures.

It seems that this book will be especially interesting to surgeons, anesthesiologists, pediatricians, dentists, nurses, medical students and those in other disciplines who are engaged in basic teaching and research related to anesthesiology of infants and children.

Lt. Col. Albert E. Hensel, Jr., MC, LaNG

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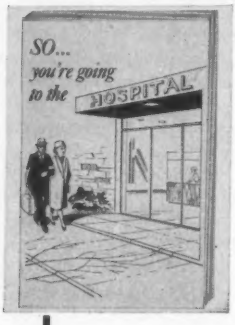

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